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THE INSECT PEST SURVEY  
BULLETIN

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A periodical review of entomological conditions throughout the United States  
issued on the first of each month from March to December, inclusive.

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## INSECT PEST SURVEY BULLETIN

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### OUTSTANDING ENTOMOLOGICAL FEATURES IN THE UNITED STATES FOR JULY, 1930

Reports of more or less serious grasshopper trouble have been received from practically the entire country from Connecticut to California, and southward to Texas. Serious outbreaks have occurred in northeastern Colorado and parts of Wyoming, Oklahoma, Nebraska, and South Dakota. Grasshoppers are damaging sugar beets in Utah and small grains in southern California.

Rather severe damage to alfalfa by the pale western cutworm is reported from the southern tier of counties in Nebraska and the black cutworm is doing considerable damage to corn and cotton in Mississippi.

One of the periodical outbreaks of the white-lined sphinx occurred this year in parts of Wyoming and Nevada. The enormous numbers of caterpillars attracted considerable attention, though but little damage was recorded.

White grubs are seriously abundant throughout southern Wisconsin and south-central Minnesota, westward into eastern Iowa, and Nebraska.

As is to be expected with the extremely dry weather prevailing over much of the country, damage by the red spider is occurring from Virginia southward to Alabama and Mississippi and westward to North Dakota and Nebraska.

The Hessian-fly situation in Ohio seems to be generally favorable except in Butler County in the southwestern part of the State, where the insect occurs in threatening numbers at the present time. The outbreak in southeastern Nebraska, although one of the most intense recorded for that State, did not result in very decided crop losses owing to extremely favorable growing conditions.

The green bug was quite generally prevalent during late June and early July in parts of Minnesota, the Dakotas, Nebraska, and Colorado.

The severest infestation of the fall armyworm in Florida since 1912 occurred during the latter part of June and in early July. Similar damage was recorded from parts of Georgia, Alabama, Louisiana, and the southern two-thirds of Mississippi.

More or less serious damage by the corn ear worm to sweet corn is being reported from practically the entire United States east of the Rocky Mountains. The stalk borer is also quite generally prevalent over this same territory.

A recent intensive survey of southern Idaho, to determine the relative abundance of the alfalfa weevil, indicates that this insect is most numerous in the southeastern one-third of the State along the Snake River from Fremont County on the eastern border to Twin Falls County on the southern border of the State. The infestation is very light over the southwestern and south-central parts of the State. A detailed report of the survey is included in this number of the Bulletin.

The codling moths of the second brood were emerging in very threatening numbers during the first half of July in Ohio, Indiana, Illinois, and northern and central Missouri.

Apple leafhoppers were reported as unusually abundant throughout New England and the Middle Atlantic States westward to Missouri, Iowa, and Minnesota.

An outbreak of the Colorado potato beetle has been discovered in Canyon County, Idaho, a previously noninfested territory.

The potato leafhopper is appearing in rather large numbers throughout the potato-growing sections of Michigan, Wisconsin, Minnesota, and Iowa this summer, where damage is already being noticed.

The harlequin bug is unusually abundant this year in North Carolina, Alabama, and Mississippi.

The Mexican bean beetle is being quite generally reported throughout the entire infested territory, but the infestations in the northern part of its range do not seem to be so serious as they were last year.

More or less serious damage by the onion thrips is reported from New York, Virginia, Illinois, Iowa, and Utah.

The elm leaf beetle is appearing in outbreak numbers throughout New England and southeastern New York State. Severe outbreaks are also reported from points in Ohio and Kentucky.

The spruce budworm seems to be quite generally prevalent over a

large part of Michigan and Wisconsin, with serious outbreaks in parts of Wisconsin.

Very serious damage to Asparagus plumosus has been reported from the commercial ferneries in Palm Beach County, Florida, where a cicada (Diceroprocta viridifascia Walk.) is killing out the plantations, the nymphs feeding on the roots of this plant. Another cicada (Tibicen cinctifera Uhler) is emerging in large numbers in Phoenix, Ariz., and, though swarming in the citrus trees, has, so far, done no commercial damage.

#### OUTSTANDING ENTOMOLOGICAL FEATURES IN CANADA FOR AUGUST, 1930:

Cutworms have continued to cause serious damage to field and garden crops, particularly in the Prairie Provinces. The outbreak of the pale western cutworm is heavy and widespread in Saskatchewan, and general in Alberta, and the red-backed cutworm has occasioned much crop loss in southwestern Manitoba and southeastern Saskatchewan, and in Alberta.

Grasshoppers are a serious pest on the Chilcotin ranges, in British Columbia, but elsewhere in the Dominion no outstanding crop damage has been reported.

Extensive and heavy infestations of the Colorado potato beetle are noted from sections of the Maritimes, southern Ontario, and southern Saskatchewan.

The striped cucumber beetle has increased in abundance over 1929 in southern sections of New Brunswick and Ontario.

Cabbage and onion root maggots are reported to have shown a material increase in numbers over last year in southern Alberta and the Okanagan Valley, British Columbia.

The fruit-tree leaf-roller occurred in injurious numbers in orchard sections of Ontario, north of Lake Ontario.

The ugly-nest caterpillar is reported in abundance on choke-cherry in southern sections of New Brunswick and Manitoba.

The raspberry cane borer has increased markedly in southern Ontario and southern Quebec.

In the orchards of southern Quebec the apple curculio is proving to be the worst insect pest of the season.

The rose chafer occurred in destructive abundance in sections of southern Ontario.

The green apple aphid which was an important pest in fruit-growing sections of the Dominion in 1929, has been noted as troublesome only from the Okanagan Valley, British Columbia.

The outbreak of the black-headed budworm affecting balsam and spruce in southern Cape Breton Island, Nova Scotia, continues severe.

A serious outbreak of a tussock moth species, Hemerocampa pseudotsugata McD., on Douglas fir, developed in certain sections of British Columbia, and, in the same province, bark beetles are gradually killing off pure stands of lodgepole pine.

In Quebec, along the north shore of the St. Lawrence River, indications are that the hemlock looper outbreak will continue severe during the present season.

For the first time on record the satin moth has been found in eastern Canada, in the Maritime Provinces. Two local infestations were discovered, one on willow at Annapolis Royal, Nova Scotia, on June 25, and the other on poplar at Moncton, New Brunswick.

In districts near the Saskatchewan River, Saskatchewan, the attacks of black flies on livestock have been serious. At one locality, Naicam, the deaths of 50 head of livestock have been caused by these pests.

G E N E R A L F E E D E R S

GRASSHOPPERS (Acriidae)

Kentucky      W. A. Price (July 25): Grasshoppers are very abundant on corn and tobacco in the Bluegrass Region.

Minnesota      A. G. Ruggles and assistants (July): Grasshoppers are occurring in moderate abundance in the southwestern corner of the State.

South Dakota      H. C. Severin (July 18): Grasshoppers (Melanoplus differentialis Thos., M. bivittatus Say, M. atlantis Riley, and M. femur-rubrum DeG.) are very abundant over the entire State except the southeastern corner.

Iowa      C. J. Drake (July 23): Grasshoppers are moderately abundant to very abundant over the entire State, doing a considerable amount of damage; no outbreaks.

Missouri      K. C. Sullivan (July 1): Grasshoppers are general and becoming abundant.

Nebraska      M. H. Swenk (June 15-30): Grasshoppers (Melanoplus spp.) were reported abundant in the Platte Valley, from Kearney to North Platte, both in alfalfa and flower gardens, during the closing days of June. (July 1-15): M. differentialis Thos. continued to be reported as injurious in eastern Nebraska, especially in flower gardens, during the period July 1-15. (July 18): Grasshoppers are moderately abundant over the entire State.

Oklahoma      C. F. Stiles (July 19): It seems that the hoppers are increasing in southwestern Oklahoma.

Wyoming      G. A. Bieberdorf (July 20): Grasshoppers are moderately abundant in southwestern Oklahoma.

Montana      W. B. Mabee (July 22): There is a rather severe outbreak of Camnula pellucida Scudd. in the Centennial Valley in Beaverhead County. Control operations are under way. Grasshoppers are abundant in Cascade and Petroleum Counties.

Wyoming      A. G. Stephens (July 2): Grasshoppers are reported on the upland of Johnson County. (July 10): On the upland in north-central Wyoming.

Colorado      C. P. Gillette (July 21): Grasshoppers are very abundant in northeastern Colorado, - worse than for many years.

Utah      G. F. Knowlton and M. J. Janes (June 28): Grasshoppers are very abundant, damaging sugar beets at Layton. (July 8): Grasshoppers are present in damaging numbers in the area west of Smithfield. (July 19): Grasshoppers are very abundant over most parts of northern Utah; often damaging farm crops.

Arizona     C. D. Lebert (July 25): Several species of grasshoppers are very abundant in the Salt River Valley, at Phoenix.

California   Monthly News Letter, Office of Los Angeles County, Agr. Comr., Vol. 12, No. 7 (July 15): Approximately \$2,000 worth of damage has been done by grasshoppers in the Ridge Route area in the vicinity of Bailey and Quail Lakes during June, according to the estimate of Geo. Murphy. He states that the damage was principally to late wheat and barley and almost all on one ranch. One grower sustained a loss of approximately \$1,500 and another was damaged to the extent of \$500. Approximately 10,000 acres were inspected.

Montana     W. B. Mabee (July 22): The Mormon cricket outbreak in Sanders County is completely under control.

Maine        H. B. Peirson (July 22): Cutworms are very abundant in general.

Iowa        H. E. Jaques (July): Cutworms are moderately abundant throughout the State and very abundant in the western and southern parts of the State.

Nebraska    M. H. Swenk (June 15-30): During the third week in June numerous complaints were received of damage to the newly starting second cutting of alfalfa hay by the variegated cutworm (Lycophotia margaritosa Haw.). These reports came chiefly from the southern tier of counties, from Gage County on the east to Furnas County on the west, and north to Hall County. In a number of fields the damage was severe.

Mississippi R. W. Harned (July 22): During the last week in June and the first week in July several complaints were received regarding injury to young corn and cotton by the greasy cutworm (Agrotis ypsilon Rott.). Specimens collected on corn were received from Holmes, Tallahatchie, Lincoln, and DeSoto Counties. Specimens collected on cotton were received from a correspondent at Belzoni, who reported that several hundred acres of cotton in that vicinity had to be replanted because of this insect.

Montana

W. B. Mabee (July 22): Porosagrotis orthogonia Morr. has done considerable damage in the central part of Montana, just how much will be very difficult to determine as the dry weather has ruined practically all of the crops in the area where this cutworm was abundant.

Oregon

L. P. Rockwood (July 3): Larvae (Prodenia praefica Grote) average hardly one-half grown, so there will probably be appreciable injury to alfalfa at Central Point, Josephine County, within the next two or three weeks.

WHITE-LINED SPHINX (Celerio lineata Fab.)

Wyoming

A. G. Stephens (Telegram) (July 3): Outbreak of armyworm near Douglas. Lives on burdock or any broad-leaf forage plant.

Nevada

T. E. Buckman (June 27): Specimens were secured near Yerington. Similar worms are reported from at least three other sections of the State and apparently they are moving in off the desert. These were reported to extend over an area 75 miles in length near Tonopah, and were reported to be very near our cultivated area. This year snowfall and late rains caused a great number of flowers to spring up throughout the State in the sagebrush country.

WIREWORMS (Elateridae)

Vermont

H. L. Bailey (July 5): Wireworms are very abundant in Shrewsbury, Rutland County, destroying potato seed pieces.

Wisconsin

E. L. Chambers (July 18): Reports are being received from various sections of southern Wisconsin to the effect that noticeable injury is taking place. Wireworms are also moderately abundant in truck gardens in the vicinity of Milwaukee.

Iowa

C. J. Drake (July 23): Wireworms are reported on corn by farmers in northeastern and southeastern Iowa, and are reported here and there as abundant.

Utah

G. F. Knowlton (July 8): Wireworms are seriously damaging the wetter part of one sugar-beet field at Smithfield. (July 11): Wireworms have taken 60 per cent of one field of late-lanted sugar-beets at Benson, in Cache County. Sixty-eight wireworms were taken within a radius of 6 inches on a beet in the ten-leaf stage.

WHITE GRUBS (Phyllophaga spp.)

Ohio

E. W. Mendenhall (July 10): The lantana planted in the field is badly affected with white grubs in some of the plantations at Springfield, Clark County. (July 24): The loss of spruce evergreen plants was 80 per cent, in one of the nurseries located at New Vienna.

Indiana J. J. Davis (July 25): White grubs observed July 10 damaging strawberries at Hudson.

Wisconsin E. L. Chambers (July 18): White grubs are very abundant and doing serious injury to corn, strawberries, and potatoes. Cornfields throughout southern Wisconsin are suffering seriously from white-grub attack and the lawns in many of our cities are being destroyed, as well as many golf courses. Dry hot weather apparently is making these losses much greater than usual.

Minnesota A. G. Ruggles and assistants (July): Reports of moderate abundance have been received from scattered localities in south-central Minnesota.

Iowa C. J. Drake (July 23): White grubs are moderately to very abundant in eastern Iowa. Brood A is doing much damage.

Nebraska M. H. Swenk (July 1-15): White grubs continued to be reported doing damage in gardens during the period here covered. (June 15-30): Reports of damage in strawberry beds continued to be received during the month of June.

Utah G. F. Knowlton (July 3): White grubs are damaging sugar-beets in some fields at Ogden and Axtell. (July 18): White grubs are damaging a few fields of sugar-beets in lower areas at Lake View and west of Provo.

PLAINS FALSE WIREWORM (Eleodes opaca Say)

Texas F. L. Thomas (June-July): Wireworm adults (probably Eleodes opaca Say) were very abundant over the entire wheat area of the Texas panhandle in June.

ROSE CHAFER (Macrodactylus subspinosus Fab.)

New York Weekly News Letter, N. Y. State Coll. Agr.: (June 30): Rose chafers are numerous in a few grape vineyards in Dutchess County. They have caused considerable injury in a small section in Wayne County.

Ohio E. W. Mendenhall (July 2): The rose chafer is quite bad on young nursery stock at Mt. Vernon, Knox County.

RED SPIDER (Tetranychus telarius L.)

Virginia G. E. Gould (July 21): Red spiders have been quite abundant this year and are causing considerable damage to snap beans. Injury to evergreens has also been reported.

Ohio E. W. Mendenhall (July 24): The extended drought has been favorable for the red spider, and it has become very injurious

to evergreens in nurseries in Clark County; arborvitae and other evergreens, and hollyhock have been infested.

Indiana      J. J. Davis (July 25): The red spider was destructive to evergreens at New Albany June 22 and Elwood June 26 and to beans at Greencastle July 17.

Kentucky     W. A. Price (July 25): The red spider continues to be a serious pest on the evergreens. It was also found doing much damage to grapevines at Hazard.

Wisconsin    E. L. Chambers (July 18): One of the heaviest outbreaks in years has been experienced in Wisconsin this summer. While evergreens show the greatest injury, the nursery inspectors are finding heavy losses to many shade trees, shrubs, and perennials, owing to hot dry weather over a period of several weeks.

North Dakota    J. A. Munro (July 17): A number of reports of the red spider have been received particularly from counties along the Red River Valley. Most of the injury is to raspberries.

Iowa           C. J. Drake (July 22): The red spider has been unusually abundant and destructive to conifers in the State. Many trees have been badly discolored.

Alabama        J. M. Robinson (July 23): The red spider is abundant at Marion and Tuscumbia.

Mississippi    R. W. Harned (July 22): Reports regarding heavy infestations of the red spider on cotton and also on various ornamental plants have been received from many sections of the State, including Tishomingo, Alcorn, Lee, Calhoun, Tallahatchie, Hinds, Marshall, and Humphreys Counties.

C. Hines (July 20): The red spider is very abundant on arborvitae at Yazoo City.

Nebraska       M. H. Swenk (June 15-30): About the usual number of complaints, beginning June 25, were received during the last few days in June relative to the infestation of spruce trees. These reports come chiefly from the eastern half of the State.

#### S E R E A L   A N D   F O R A G E - C R O P   I N S E C T S

##### WHEAT AND SMALL GRAIN

##### HESSIAN FLY (*Phytophaga destructor* Say)

Ohio           T. H. Parks (July 15): Twenty counties were visited on the annual wheat insect survey. In only Butler County, southwestern

Ohio, was there so sufficient infestation of the fly to cause any serious loss to this year's crop. This is the county where the infestation centered last year. In the other counties the fly has increased slightly. The average for the twenty counties this year is between 6 and 7 per cent. The infestation is quite satisfactory excepting in Butler County and those counties which immediately surround that county. Following are the percentages of infestation found in the counties visited:

<u>County</u>	<u>Per cent Infestation</u>
Butler.....	34
Clark.....	1.5
Clermont.....	11
Columbiana.....	6
Delaware.....	4
Fulton.....	4.5
Hancock.....	1.6
Henry.....	3
Highland.....	13
Knox.....	8.5
Medina.....	3.6
Miami.....	10
Muskingum.....	7.5
Pickaway.....	2
Stark.....	4.4
Warren.....	10
Wayne.....	2.7

## Michigan

R. H. Pettit (July 18): The Hessian fly is moderately abundant.

## Wisconsin

E. L. Chambers (July 18): The Hessian fly seldom appears as doing any damage in Wisconsin but a field of winter wheat near New Holstein was found quite heavily infested with noticeable injury.

## South Dakota

H. C. Severin (July 18): The Hessian fly is moderately abundant in Union and Clay Counties.

## Iowa

C. J. Drake (July 23): The Hessian fly is very abundant along the Missouri River in western Iowa. A few hundred acres of wheat totally destroyed.

H. E. Jaques (July): The Hessian <sup>fly</sup> is moderately to very abundant in the southern half of the State.

## Missouri

L. Haseman (July 26): In central Missouri the flax-seed stage in the stubble is very abundant.

Nebraska

M. H. Swenk (June 14-30): The last cycle of Hessian fly damage in Nebraska had been in the winter wheat crops of 1921-22 to 1925-26, reaching its crest in that of 1922-23, no commercial damage occurring in the winter wheat crops of 1926-27, 1927-28, or 1928-29. After the 1929 harvest, however, scattered and mostly light local infestations of the stubble with Hessian fly puparia were to be found; and a fall brood of some strength was found to be active during the month of September, presenting much more evidence of the presence of this pest than there had been during any of the preceding three autumns. During October, 1929, the fly was found to be present in 22 counties in southeastern Nebraska, and in several of them very threateningly. The infested area included solidly all of the counties south of the Platte River and west to Polk, York, Fillmore, and Thayer Counties, with an extension southwestward along the Platte that involved most of Merrick and Hall Counties, and parts of Hamilton, Adams, and Kearney Counties. In areas that involved central Cass and Otoe Counties, Nemaha County, western Richardson County, Pawnee County, central Gage, Jefferson, and Thayer Counties, southern Seward, eastern York, southern Polk, eastern Merrick, southwestern Hall, and southern Kearney Counties, there was an infestation of from 5 to 30 per cent of the wheat plants in the early-sown fields, and an infestation of from 60 to 80 per cent in the volunteer wheat. Outside of these areas the infestation ran less than 5 per cent in the early-sown wheat. Damage to early-sown fields began to show up about October 1, and numerous reports of injured fields were received during November.

Emergence of the spring brood of the Hessian fly started early in April, and reached its height about the middle of that month. The effects of the development of a heavy spring brood of larvae began to be evident in the early-sown fields about the middle of May, and were exceedingly apparent during the last 10 days in May. The area most heavily infested and injured included a block of counties centering around Lancaster County, and in this area there was considerable plowing up of badly injured or ruined wheat fields from May 20 to June 1. More accurately outlined, this area in which fields were plowed up during late May included Lancaster, Saunders, Cass, Otoe, Johnson, western Nemaha, northern Pawnee, Gage, Northern Jefferson, extreme northeastern Thayer, Saline, extreme eastern Fillmore, Seward, and most of Butler Counties, with an isolated area in southern Merrick and western Hamilton Counties. In this area the general infestation ran from 75 to 100 per cent. An area of nearly equally general infestation, but in which the damage was not so heavy as to necessitate plowing up of fields, occurred in southern Jefferson, eastern Thayer, central Fillmore, southeastern Dodge, and southern Washington Counties. An area of infestation of from 50 to 75 per cent occurred in southern Polk, eastern Hamilton, and northern York Counties.

In eastern Nemaha, eastern Richardson, and western Thayer Counties the infestation ran from 25 to 50 per cent. Infestations of less than 25 per cent were found in Sarpy, Douglas, central Dodge, southern Colfax, southern Platte, and eastern Nance Counties, and, farther westward, in Phelps (a general infestation) and Redwillow Counties.

By May 26 about 75 per cent of the larvae had entered the puparium stage, and by June 10 adult flies of the supplementary spring brood were emerging over a large area. The intensity of this emergence varied greatly. In southern Saunders County, fields were found in which as high as 60 per cent of the spring-brood puparia had given up their flies by June 16. In Lancaster County north of Lincoln about 22 per cent of the spring-brood puparia were empty by June 18, while south of Lincoln about 20 per cent had emerged by that date. The late occurrence of the larvae of the supplementary spring brood and the early ripening of the wheat, however, prevented this brood from doing a great deal of damage to the crop.

Now (July 17) that all of the wheat in southeastern Nebraska has been cut, it is possible to report upon the general effect of the above infestation on the yield of grain in this section. Fields with an infestation of from 75 to 100 per cent, mostly early-sown fields, that were not badly enough injured to justify being plowed up during the last ten days in May, show a reduction of about one-third from the normal yield. General conditions for the growth of the wheat were so favorable, however, that this reduction of yield in the heavier infested fields is not obvious in the general average yield of all fields in the affected counties, which will be about  $19\frac{1}{2}$  bushels to the acre, decidedly above the average yield for this section.

Washington

R. L. Webster (July 2): Infested wheat plants were sent in from Mossyrock in eastern Lewis County under date of June 21.

Oregon

Ore. Agr. Coll. Exp. Sta., Circular of Information No. 34: "Flaxseeds" of first generation were found April 25 about two weeks earlier than usual. Infestation of winter wheat and early spring-sown wheat by the first spring brood is heavier than normal in Washington and Yamhill Counties. Conditions appear favorable for a large and early second brood. (Max M. Reeher)

WHEAT STEM MAGGOT (Meromyza americana Fitch)

Michigan

R. H. Pettit (July 9): The wheat stem maggot appeared at Mulliken recently.

Minnesota

M. A. Thorfinnson (July 24): Some wheat stem maggots are reported in winter wheat.

Nebraska

M. H. Swenk (June 15-30): The first report of trouble with the wheat-stem maggot for the season involved a case of 15 per cent damage in a field of rye in Webster County, reported on June 28.

WHEAT JOINT WORM (Harmolita tritici Fitch)

Ohio

T. H. Parks (July 15): This insect was found to be on the increase in all parts of the State. Some fields were found to have as high as 30 to 35 per cent infestation, but this did not cause lodging or any perceptible loss.

GREEN BUG (Toxoptera graminum Rond.)

Minnesota

L. Sheldon (July 9): The green bug is moderately abundant on grain in the northwestern part of the Lac qui Parle County.

North Dakota

J. A. Munro ((July 17): Of the various pests affecting cereal crops, the grain aphid has proven the most serious so far this season. Reports have been received from county agents and farmers from Ward, Stutsman, McLean, and Grand Forks Counties regarding serious local infestations. In a number of instances the reports indicate that grain fields had been totally destroyed and farmers were plowing under these fields. The larvae of the western syrphid (Syrphus opinator O. S.) and ladybird beetles were observed feeding on the aphids in samples of infested grain sent in to this office for identification. Apparently the natural enemies of the aphids began activities too late to prevent serious injury to crops this season.

South Dakota

H. C. Severin (July 18): The green bug did much damage to small grain.

Nebraska

M. H. Swenk (June 14-30): During the period from June 14 to 30, 1930, Nebraska experienced its first wide-spread and destructive outbreak. In the spring of 1907, when this pest was so destructive in Texas, Oklahoma, and Kansas, its parasites had gained control by the time it reached Nebraska, and no commercial damage was done in this State. In late October and November of 1910, 1920, and 1924, there were local and unimportant outbreaks on the winter wheat respectively in Polk, Dodge, Saunders, and Butler, and Phelps Counties, while in June of 1920 and in 1928 there were scattered infestations respectively in the wheat and oats in Sarpy, Webster, and Harlan Counties and in the oats in Holt County. In neither of these springs, however, were there any important crop losses, as there were during the present outbreak.

The present outbreak began in south-central Nebraska, in

Kearney, Franklin, and Webster Counties, June 14 to 18. The infestation was in the wheat, oats, and corn. Corn-fields were badly infested where corn was next to infested wheat or oats or where it had been planted on wheat ground and there was volunteer wheat in the field. The wheat and oats were quite seriously injured, and in numerous instances the corn near wheat fields was entirely destroyed. By June 21, a week after the first reports of injury had been received (from Kearney County), the pest had spread west to Dundy and Lincoln Counties. Injury in Dundy and Lincoln Counties continued to be reported until July 1. In these more western counties, injury to wheat and oats was very marked, and fields were reported as being destroyed. During the same period serious injury was found to have extended into Nuckolls County, and the pest was found as far east as Lancaster County, though in the latter county the infestation was relatively light in most of the fields, and, with a few exceptions, no commercial damage was done.

During the following week, June 22 to 28, the spread of injury continued westward and northward. The center of injury northward was in Pierce, Madison, Antelope, Holt, Wheeler, and Greeley Counties. In this district it was the oats that suffered the most. The insects were present in many fields in tremendous abundance, and the farmers reported the fields destroyed in a large number of cases, between June 22 and July 1. The damage in Holt County was worst in the vicinity of Atkinson, O'Neill, and Chambers, chiefly in oats but some in barley, and reports indicated the killing out of a number of fields. In southern Wheeler County, around Ericson, the oat fields were, in general, badly infested and during the last few days in June the killed areas were reported as having spread greatly. In Greeley County the oat fields around Spalding and Greeley were reported as being very heavily infested June 27 to July 1, and undoubtedly hundreds of acres in this vicinity were badly injured or destroyed.

During the same week, June 22 to 28, the area of injury extended westward also. In Dundy County the damage, which was first reported on June 21, had extended by June 26, and fields of wheat, spelt, and corn were reported to be badly damaged or destroyed. June 26 and 27 oats, spelt, and corn were reported being destroyed around Imperial, Chase County. The bugs were reported as "very thick in the air" and "coming in clouds," and destroying fields within a few days. By June 28 oats and barley in Keith County, around Ogallala, was being badly injured, and on the same date oats in Morrill County, around Bridgeport, were found badly damaged. The coming of hotter and drier weather toward the end of June checked the spread and injury during the closing few days of the month, and the outbreak was on the wane over most of the infested areas by July 1.

In all of these infested fields the ladybird beetle Hippodamia convergens Guer. has developed an enormous abundance and is doing wonderful work in the natural control of the aphid.

M. H. Swenk (July 1-15): As stated in my special report, dated July 3, the Nebraska outbreak was on the wane over most of the infested areas by July 1. The last reports were sent in on July 7. These related mostly to infestation in oats, and to a less extent in spring wheat, spelt, and barley, in the block of counties including Madison, Antelope, Holt, Wheeler, Greeley, Valley, Garfield, Loup, Rock, and Brown. In the western area the last complaints were received from Lincoln County on July 1, from Scotts Bluff County on July 2, and from Keith County on July 7.

Colorado

C. P. Gillette (July 21): The green bug is very abundant in eastern Colorado. From Cheyenne County north on late-sown grains. More serious than for many years,

ENGLISH GRAIN APHID (Macrosiphum granarium Kby.)

Nevada

G. G. Schweis (July 16): Very abundant on fields of spring wheat in Lyon and Washoe Counties, apparently causing some dwarfing of heads. Ladybird beetles are very abundant and apparently will clean them up.

SMUT BEETLE (Phalacrus politus Melsh.)

Nebraska

M. H. Swenk (June 15-30): The smut beetle (Phalacrus politus) was reported as abundant in fields of smutted wheat in Clay County during the last week in June.

CORN

FALL ARMYWORM (Laphygma frugiperda S. & A.)

North Carolina

"The News & Observer" (July 7): County Agent N. M. Smith has discovered heavy infestation of the armyworm on more than 50 farms in Onslow County.

Florida

J. R. Watson (July 18): The last days of June and the first days of July witnessed the heaviest infestation which Florida has experienced since 1912. The worms were troublesome in areas ranging from the Everglades to extreme western Florida, although not present in all communities between. They attacked mostly grasses. Damage was extensive to late-planted corn, cotton, and peanuts. By the 12th of the month they had pupated in central and southern Florida, and a few days later in western Florida. Moths began to emerge on July 19 and there are prospects for a second brood soon.

Georgia            O. I. Snapp (July 15): The fall armyworm has done considerable damage in several localities in Houston County. Infestations have been heavy in a number of southern Georgia counties.

Alabama            T. O'Neill (July 4): The fall armyworm is reported by property owners as doing serious damage at Atlanta and Valdosta to golf courses and lawns, Bermuda grass, corn, and millet. This insect is also reported at Thomaston.

Louisiana          J. M. Robinson (July 23): The fall armyworm is generally distributed over the State causing serious damage to corn, sorghum, sugarcane, soy beans, and various grasses. There is a general outbreak.

Mississippi        H. E. Hinds (July 26): The fall armyworm has occurred in damaging numbers in only a few localities. However, worms have been fairly common and full-grown larvae were crawling across walks in small numbers at Louisiana State University in the middle of July.

Mississippi        R. W. Harned and assistants (July): This insect is occurring in abundance over most of the southern two-thirds of the State. The following host plants are being attacked: Beans, corn, cotton, gladiolus, peas, sugarcane, soy beans, rutabagas, velvetbeans, and zinnias.

ARMYWORM (Cirphis unipuncta Haw.)

Nebraska           M. H. Swenk (June 15-30): On June 28 the true armyworm was reported destroying corn in Hall County and sweet clover in Nuckolls County.

Wyoming            A. G. Stephens (July 2): Armyworms are reported in the upland of Converse County.

CORN EAR WORM (Heliothis obsoleta Fab.)

Connecticut        W. E. Britton (July 24): This insect has been reported as attacking corn at New Haven, Derby, and Groton. Reports have come in earlier than usual.

Delaware           L. A. Stearns (July 23): Several inquiries received during the first week in July at Camden.

West Virginia      L. M. Peairs (July 23): The corn ear worm is unusually abundant in Morgantown and other places.

Ohio                T. H. Parks (July 15): The corn ear worm did some damage by burrowing into early tomatoes along the Ohio River. Each year this insect brings itself to the attention of the tomato growers, who harvest their crop early in this section.

Indiana            J. J. Davis (July 25): The corn ear worm is more abundant than in 1928 and 1929, when it was practically absent. June 28-July 11 this insect was reported feeding in the green tassels of corn at Nashville, Booneville, and Brooksville.

Illinois           W. P. Flint (July 17): The corn ear worm is causing rather heavy damage to early sweet corn throughout central Illinois.

Kentucky           W. A. Price (July 25): The corn ear worm is very abundant in the Bluegrass region.

Minnesota         A. G. Ruggles and assistants (July): The corn ear worm is moderately abundant at Brainerd, Crow Wing County, and in Blue Earth County.

Iowa               H. E. Jaques (July 25): The corn ear worm is moderately abundant in Plymouth, Winneshiek, and Jefferson Counties.

Missouri          L. Haseman (July 26): Sweet corn and early field corn are badly infested.

STALK BORER (Papaipema nebris nitela Guen.)

Kentucky          W. A. Price (July 25): The common stalk borer has done much damage in Kenton County and at other scattered points in the State.

Wisconsin         E. L. Chambers (July 18): Several patches of sweet corn and many gardens in the southern part of the State have been damaged.

Nebraska          M. H. Swenk (June 15-30): First reported this season from Richardson County on June 12. During the last four days in June numerous additional reports of stalk borers in corn were received, these including an area north and west from Richardson County to York County and Madison County. These reports indicated damage varying from the partial destruction of the outer row or two of the corn plants, to an amount approximating 10 per cent of all of the stalks in the field. (July 1-15): The stalk borer continued to be reported infesting corn during the two weeks here covered. These reports came from the region included within Burt, Butler, Holt, and Pierce Counties. Actual damage by this insect was apparently light, most of the reporters merely fearing possible additional damage.

LESSER CORN STALK BORER (Elasmopalpus lignosellus Zell.)

Mississippi       R. W. Harned (July 22): A correspondent at Ethel, Attala County, sent to us on July 16 specimens with the report that these insects were injuring corn in that vicinity.

CHINCH BUG (Blissus leucopterus Say)

New York  
and  
Connecticut

E. P. Felt (July 26): There was a somewhat marked though probably local infestation by the chinch bug on lawns in Port Chester, N.Y. and Greenwich, Conn., in the case of the former, areas of possibly a quarter of an acre being almost entirely destroyed.

Ohio

T. H. Parks (July 15): The chinch bug is almost entirely absent from our State in spite of the very dry spring and summer. None were observed by the entomologists on the wheat-insect survey and no reports have been received of the insect injuring corn.

Illinois

W. P. Flint (July 17): Throughout much of the central and south-central parts of Illinois the rainfall has been very much less than normal, and the temperature has been quite high during the months of April and May and the first half of July. This has provided an ideal condition for the chinch bug and the small numbers of bugs present early in the season have produced a maximum number of offspring so that slight damage has occurred to corn adjoining wheat in Christian, Macon, Sangamon, Cass, Shelby, and a few adjoining south-central Illinois counties.

Iowa

H. E. Jaques (July): The chinch bug is reported absent except in Clay and Jackson Counties where it is scarce.

Missouri

L. Haseman (July 26): Several counties in central Missouri are badly overrun. They <sup>bugs</sup> are mostly winged and now in corn.

Oklahoma

C. F. Stiles (July 19): Chinch bugs are very abundant in the north-central and southwestern parts of the State. Considerable injury is being done to feed crops.

Mississippi

R. W. Harned (July 22): Three reports regarding infestation of corn have been received at this office during July. Medium injury to corn was reported from Brookhaven, Lincoln County, on July 19. A slight infestation was reported from Drew, Sunflower County, on July 5. A correspondent at Hernando, De Soto County, sent in the following report on July 14: "They have destroyed the corn and grass in this particular field."

CORN BILLBUGS (Sphenophorus spp.)

Missouri

K. C. Sullivan (July 1): Corn billbugs are serious in the lowlands in southeastern Missouri.

Nebraska

M. H. Swenk (June 15-30): Around the middle of June corn billbugs were reported quite bad in the southeastern part of Sarpy County. The species concerned were Sphenophorus aequalis Gyll. and S. melanocephalus Fab.

CLOVER, ALFALFA, COWPEAS

ALFALFA WEEVIL (Phytonomus posticus Gyll.)

Idaho C. Wakeland (July 26): Between June 6 and July 11 a survey was carried on in all of the alfalfa-growing sections of southern Idaho with the following results:

Average number of larvae and adults per 100 sweeps of the net.

<u>County</u>		<u>County</u>	
Ada .....	26.0	Fremont .....	1090.0
Adams .....	0.6	Gem .....	6.7
Bingham .....	261.6	Gooding .....	50.1
Blaine .....	207.0	Jefferson .....	313.1
Boise .....	100.0	Jerome .....	2.0
Bannock .....	48.2	Lincoln .....	66.0
Butte .....	10.0	Madison .....	1418.4
Bear Lake .....	126.0	Minidoka .....	249.0
Camas .....	4.0	Oneida .....	35.0
Custer .....	0.2	Payette .....	39.7
Canyon .....	15.0	Power .....	74.0
Caribou .....	0.3	Teton .....	1.5
Cassia .....	400.0	Twin Falls .....	117.5
Clark .....	497.5	Valley .....	0.0
Elmore .....	2.2	Washington .....	1.3
Franklin .....	97.6		

Nevada G. G. Schweiss (July 21): The alfalfa weevil very badly damaged the fruit crop in sections of Reno.

SAYS BLISTER BEETLE (Pomphopoea sayi Lec.)

Vermont H. L. Bailey (July 5): Say's blister beetle has been reported from Morrisville, Wells River, and North Calais. Adults clustering on locust and later on clover. No serious damage.

APHIDS (Aphidae)

Utah G. F. Knowlton (June 27): Aphids are seriously holding back the growth of young alfalfa at Fillmore.

PEA APHID (Illinoia pisi Kalt.)

Illinois J. H. Bigger (July 9): The pea aphid is abundant. Two 20-acre fields of red clover in Christian County severely damaged July 3 and one 20-acre field of red clover in Morgan County. Also 20 acres of cowpeas in Pike County showed typical injury, though aphids had been washed off by severe rains.

Nebraska M. H. Swenk (June 15-30): In Furnas County some of the alfalfa fields were heavily infested.

BEAN APHID (Aphis rumicis L.)

Virginia

G. E. Gould (July 21): This aphid was exceedingly abundant on several species of dock this spring and later migrated to cowpeas, snap and lima beans, and nasturtiums. It was necessary to treat the cowpeas to prevent serious injury.

PEANUTS

VELVETBEAN CATERPILLAR (Anticarsia gemmatalis Hbn.)

Florida

J. R. Watson (July 18): The velvetbean caterpillar has been inflicting much injury to peanuts in the Everglades.

GRASS

SHORT-TAILED CRICKET (Anurogryllus muticus DeG.)

Virginia

G. E. Gould (July 21): During April and May several complaints were received from Norfolk concerning an insect that was burrowing in lawns. However, no specimens were found until June when the same type of work was noticed in the lawns at the Virginia Truck Experiment Station. After much digging two specimens of a brown cricket were caught and were later identified by A. N. Caudell. The work of this insect is not serious, the chief complaint being the unsightly appearance of the lawn due to small piles of earth pushed out of the burrows.

F R U I T I N S E C T S

COTTON LEAF WORM (Alabama argillacea Hbn.)

Mississippi

R. W. Harned (July 30): (Telegram) Cotton worms probably quite generally distributed throughout Mississippi. Worms or definite reports received from Sunflower, Holmes, Oktibbeha, Washington, Humphreys, Yazoo, Sharkey, and Issaquena Counties.

APPLE

CODLING MOTH (Carpocapsa pomonella L.)

Delaware

L. A. Stearns (July 23): The first adult of the first brood was reported at Camden July 2 and at Bridgeville July 6. The first eggs of the second brood were reported at Camden July 8, and the first larvae of the second brood were reported at Bridgeville July 12.

Ohio            T. H. Parks (July 15): The codling moth is increasing rapidly in Ohio. We expect a large second brood and spraying is now in progress to control it. Moths of this brood began emerging at Ironton July 1, Columbus July 5, and Wooster July 11. No emergence of the second brood has occurred as yet at Oak Harbor, near Lake Erie.

Indiana        J. J. Davis (July 25): Weather conditions have been ideal for the development of the codling moth and with continued favorable conditions we may anticipate a maximum development, possibly surpassing the peak reached in 1926.

Illinois        J. H. Bigger (July): The codling moth is moderately abundant. Surveys indicate a moderate to heavy second brood.

                W. P. Flint (July 17): The dry hot weather has been very favorable to the development of the codling moth and a rather heavy second brood is developing in central and northern Illinois. In southern Illinois the insect is less abundant at this time than in the central part of the State.

                C. C. Compton (July): The codling moth is reported in Cook County, July 12. Second brood will spread over a much longer period than usual. First pupation at Des Plaines occurred July 12 while many larvae less than half grown are to be found in apples.

Missouri       L. Haseman (July 26): In central and northern Missouri the peak of emergence of the second brood was reached July 19-24. Very abundant.

                K. C. Sullivan (July 1): Adults of the second generation began to appear July 5-14; not so serious as last year.

Nebraska       M. H. Swenk (June 15-30): The peak of emergence of the spring brood at Lincoln occurred May 31. The first eggs of the first brood were laid during the last week in May. The last spring-brood emergence in the outdoor insectary occurred on June 28. The first larvae of the first brood were found in the orchard on June 4 and the first larvae hatched in the insectary on June 10. The first pupa of the first brood was found June 27. The height of first-brood pupation is now close at hand.

Oregon          D. C. Mote (July 1): B. G. Thompson reports a good many are being found in traps at Monroe and Corvallie. Not so many eggs deposited as normally. Peak of first egg deposition of first generation not reached until June 30.

Nevada          G. G. Schweiss (July 21): The codling moth is reported at Reno. Unsprayed fruit is 75 per cent wormy.

PISTOL CASE BEARER (Coleophora malivorella Riley)

West Virginia

L. M. Peairs (July 23): The pistol case bearer is very abundant in Jefferson County. It has increased in several orchards.

EYE-SPOTTED BUDMOTH (Spilonota ocellana Schiff.)

New York

Weekly News Letter, N. Y. State Coll. Agr. (July 7): Large numbers were reported as present in many orchards in Niagara County July 21.

APPLE REDBUG (Lygidea mendax Reut.)

New York

Weekly News Letter, N. Y. State Coll. Agr. (July 7): Redbug injury is serious in many orchards, especially of Greenings, in Niagara County. (July 21): Redbug injury has damaged some of the fruit but is not excessive.

LEAFHOPPERS (Cicadellidae)

Massachusetts

A. I. Bourne (July 24): Apple leafhoppers are moderately to very abundant. They are abundant in some orchards, especially in eastern Massachusetts.

Connecticut

W. E. Britton (July 24): Apple leafhoppers are very abundant - unusually abundant.

Rhode Island

A. E. Stene (July 18): Apple leafhoppers are moderately abundant.

New Jersey

T. J. Headlee (July 7): Apple leafhoppers are moderately abundant.

Delaware

L. A. Stearns (July 23): Erythroneura hartii Gill. is very abundant at Millsboro.

Michigan

R. H. Pettit (July 18): Apple leafhoppers are moderately abundant.

Wisconsin

E. L. Chambers (July 18): Apple leafhoppers are moderately abundant. Serious injury in nursery trees.

Minnesota

E. C. Roth (July 15): Apple leafhoppers are moderately abundant in Brainerd, Crow Wing County.

Iowa

C. J. Drake (July 23): Apple leafhoppers are moderately abundant over the entire State.

Missouri

K. C. Sullivan (July 1): Apple leafhoppers are general and very abundant.

APPLE MAGGOT (Rhagoletis pomonella Walsh)

New York

Weekly News Letter, N. Y. State Coll. Agric. (July): Apple maggot flies began to emerge in cages in Dutchess, Ulster, and Columbia Counties the last week in June, and by July 21 egg laying was heavy and the early varieties had already begun to show the presence of maggots in Dutchess County.

Ohio

T. H. Parks (July 15): Adult flies were observed for the first time on July 11 in northeastern Ohio. Serious damage to some varieties occurred in several counties last year.

Iowa

C. J. Drake (July 22): The apple maggot is emerging at Ames. The first adults appeared about a week ago.

ROSE LEAF BEETLE (Nodonota puncticollis Say)

New York

Weekly News Letter, N. Y. State Coll. Agr. (June 30): The rose leaf beetle has been found in a number of orchards in Orange County.

APPLE CURCULIO (Tachypterus quadrigibbus Say)

Missouri

K. C. Sullivan (July 1): The apple curculio is causing considerable injury to apples in orchards on Missouri River Hills.

PEACH

PEACH BORER (Aegeria exitiosa Say)

New Jersey

T. J. Headlee (July 7): The peach borer is moderately abundant.

Georgia

O. I. Snapp (July 19): The first pupae of the year were recorded today. Pupation during the past week has rapidly increased. Many new cocoons are now being constructed at the base of trees that are being observed every other day.

ORIENTAL FRUIT MOTH (Laspeyresia molesta Busck)

Connecticut

P. Garman (July 24): The oriental fruit moth is reported slightly less abundant in New Haven and Hartford Counties than in 1929.

W. E. Britton (July 24): The oriental fruit moth is moderately abundant - plentiful.

New York

Weekly News Letter, N. Y. State Coll. Agr. (July): Second-brood larvae are working in the terminals in fruit

in the vicinities of Youngstown and Lewiston, but relatively few twigs are damaged in orchards in other parts of Niagara County.

New Jersey

T. J. Headlee (July 7): The oriental fruit moth is moderately abundant.

Delaware

L. A. Stearns (July 23): Twig injury by the oriental fruit moth's second brood is over and the third brood is just commencing to appear throughout the State.

West Virginia

L. M. Peairs (July 23): The oriental fruit moth is comparatively scarce in Morgantown.

Georgia

O. I. Snapp (July 21): The broods in the field are now overlapping. Fruit infestation is not more than 1 per cent. No commercial damage in peach orchards at Fort Valley.

Ohio

T. H. Parks (June 30): The oriental fruit moth is moderately abundant.

Illinois

W. P. Flint (July 17): There has been little change in the oriental fruit moth situation during the past month. A moderate increase has occurred in the number of twigs infested and a very few larvae are now entering apples in the southern part of the State.

J. H. Bigger (July): The oriental fruit moth is scarce. First record in Greene County, near Hillview, June 28.

Michigan

R. H. Pettit (July 18): The oriental fruit moth is moderately abundant locally.

Mississippi

R. W. Harned (July 22): Peach twigs that had evidently been injured by the larvae of the oriental fruit moth, Laspeyresia molesta, were received from Cruger on June 26 and from Bude on July 18.

J. Milton (July 19): This insect, although scarce, is found in many orchards in Alcorn, Prentiss, Tippah, and Tishomingo Counties.

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Maine

H. B. Peirson (July 22): The plum curculio is very abundant in general.

Vermont

H. L. Bailey (July 5): The plum curculio is moderately abundant.

Connecticut

W. E. Britton (July 24): The plum curculio is moderately to quite abundant.

Rhode Island A. E. Stene (July 18): The plum curculio is very abundant.

New York Weekly News Letter, N. Y. (State Coll. Agr.) (July): Reports from Clinton and Niagara Counties indicate that the plum curculio has been more injurious than usual.

New Jersey T. J. Headlee (July 7): The plum curculio is very abundant.

Delaware L. A. Stearns (July 23): Peach drops are badly infested by the first-brood grubs of the plum curculio in southern Delaware.

West Virginia L. M. Peairs (July 23): The plum curculio is moderately abundant, - more than usually so in Morgantown.

Georgia O. I. Snapp (July 19): The first egg of the second generation was deposited on July 14, and deposition of second-generation eggs is now (July 19) beginning to be heavy. Hiley and Georgia Belle peaches have all been harvested, and the peak of the Elberta harvest has been reached. As predicted earlier in the season, all varieties ripening before the Elbertas have been harvested before the second-brood attack, and it is believed that practically all of the Elbertas will escape damage this year from a second brood of curculio larvae.

Florida J. R. Watson (July 18): The plum curculio is very abundant. About as usual.

Ohio T. H. Parks (June 30): The plum curculio is very abundant.

Michigan R. H. Pettit (July 18): The plum curculio is very abundant.

Minnesota A. G. Ruggles and assistants (July): Reports indicate that this insect is moderately abundant in Kittson, Martin, and Blue Earth Counties, and very abundant in Fillmore and Itasca Counties.

Missouri L. Heseman (July 26): Many adults had emerged and were mating by July 1; most all out July 8.

K. C. Sullivan (July 1): The plum curculio is causing considerable injury to apples in orchards on Missouri River hills.

Alabama J. M. Robinson (July 23): The plum curculio is moderately abundant at Auburn.

Texas F. L. Thomas (July 17): The plum curculio was very abundant in July in Limestone and Chambers Counties.

Mississippi      R. W. Harned and assistants (July): This insect has been reported from moderately to very abundant from scattered sections in the southern part of the State.

APRICOT

PEACH TWIG BORER (Anarsia lineatella Zell.)

Utah      G. F. Knowlton and M. J. Janes (July): The first generation of peach twig borers has infested about 5 per cent of the apricot crop at Ogden. Larvae are now becoming mature. Adult moths of the first-generation peach twig borers are now emerging from infested apricots.

PEAR

PEAR PSYLLA (Psylla pyricola Foerst.)

New York      Weekly News Letter, N. Y. State Coll. Agr. (July): The pear psylla, though reported from most of the fruit-growing regions, has done little damage this year. During the last week in July it was reported in considerable numbers from Genesee County in unsprayed orchards.

PEAR LEAF BLISTER MITE (Eriophyes pyri Pgst.)

New York      Weekly News Letter, N. Y. State Coll. Agr. (July): Pear leaf blister mite injury has become noticeable on some trees in Niagara County.

CHERRY

CHERRY FRUIT FLY (Rhagoletis cingulata Loew)

Oregon      D. C. Mote (July 1): S. C. Jones reports that cherry fruit flies began emerging June 13. They did not start coming out in large numbers until about June 25, and have been coming out in large numbers to the present time.

PEAR SLUG (Eriocampoides limacina Retz.)

Nebraska      M. H. Swenk (June 15-30): The pear slug was reported injuring cherry leaves in various parts of eastern Nebraska during the last half of June, and especially during the last week in that month.

A WOOD BORER (Prionus californicus Motsch.)

Utah      G. F. Knowlton (July 12): The larvae of Prionus californicus have been causing some injury to large cherry trees at Farmington, a number of roots being mined.

RASPBERRY AND CRANBERRY

RASPBERRY FRUIT WORM (Byturus unicolor Say)

New York Weekly News Letter, N. Y. State Coll. Agr. (July 21): The American raspberry beetle is also causing a small amount of trouble to a few growers in Chautauqua County.

RASPBERRY CANE BORER (Oberea bimaculata Oliv.)

Maine H. B. Peirson (July 22): Raspberry cane borers are very generally abundant

Vermont H. L. Bailey (July 5): The raspberry cane borer has been reported as unusually abundant in various sections of the State.

CRANBERRY ROOT WORM (Rhaphopterus picipes Oliv.)

New York Weekly News Letter, N. Y. State Coll. Agr. (July 21): Work of the cranberry root worm on apples has been found to a small extent in Wayne County.

SNOWY TREE CRICKET (Oecanthus niveus DeG.)

Utah G. F. Knowlton (June 30): Snowy tree crickets are causing some damage to blackcap raspberries.

GRAPE

GRAPE BERRY MOTH (Polychrosis viteana Clem.)

New York Weekly News Letter, N. Y. State Coll. Agr. (July 21): The grape berry moth is reported to be causing some injury in certain sections of a few vineyards in Chautauqua County.

Mississippi R. W. Harned (July 22): Grapes injured by the larvae of the grape berry moth were received from Natchez on July 5.

GRAPE LEAF FOLDER (Desmia funeralis Hbn.)

Mississippi R. P. Colmer (July 19): Grape leaf folders are abundant in the vicinity of Pascagoula on grapes.

GRAPE ROOT WORM (Fidia viticida Walsh)

New York Weekly News Letter, N. Y. State Coll. Agr. (July 21): Root worm beetles have started their egg laying underneath the bark on the trunks of the grapevines. The first egg mass was observed on Tuesday July 15 in Chautauqua County.

PERSIMMONPERSIMMON PSYLLA (Trioza diospyri Ashm.)

Mississippi : H. Dietrich (July 21): Psyllids are bad on Japanese persimmon in south George County. (Det. A. & M. College)

WALNUTWALNUT HUSK FLY (Rhagoletis juglandis Cress))

California : Monthly News Letter, Office of Los Angeles Co. Agr. Comr., Vol. 12, No. 7 (July 115): Adult walnut husk flies began emerging from infested orchards in the Pomona section July 14. These adults were not expected to come out of the ground until about the same time as last year, early in August. This insect was first noticed several years ago and was found to be causing considerable loss in the infested properties, mainly through reduction in the grades by staining the shells of the nuts.

A WALNUT APHID (Callipterus juglandis Frisch)

Oregon : D. C. Mote (July 1): B. G. Thompson reports the aphid much later than normal and not so numerous as last year.

PECANFALL WEBWORM (Hyphantria cunea Drury)

North Carolina : W. A. Thomas (July 10): The webs of this insect are much in evidence in nearly every pecan orchard in the southeastern section of the State. In some cases, rather severe defoliation has taken place. The larvae are about two-thirds grown.

Mississippi : R. W. Harned and assistants (July): The fall webworm is moderately abundant in all parts of the State.

Louisiana : H. E. Hinds (July 26): The fall webworm is becoming common on some of its wild host plants but less abundant than usual at this time.

PECAN NUT CASE BEARER (Acrobasis caryaef Grote)

Florida : J. R. Watson (July 18): The nut case bearer has reduced what was already a short crop of pecans.

Alabama : J. M. Robinson (July 23): The pecan nut case bearer is abundant at Headland.

Mississippi : R. P. Colmer (July 19): The nut case bearer is moderately abundant on pecan.

HICKORY SHUCK WORM (Taspeyresia caryana Fitch)

Mississippi

J. P. Kislanko (July 19): The pecan drop from the shuck worm this year so far is very light in the vicinity of Wiggins. The drop, however, is more noticeable on some isolated seedling trees.

WALNUT CATERPILLAR (Datana integerrima G. & R.)

Mississippi

J. P. Kislanko (July 19): The walnut caterpillar is very scarce on pecans this year. So far only two colonies have been observed.

R. P. Colmer (July 19): The walnut caterpillar is scarce on pecan this year.

APHIDS (Aphidae)

Mississippi

J. P. Kislanko (July 19): The pecan aphids Myzocallis fumipennellus Fitch, Monellia costalis Fab., and Monellia caryae Monell are very scarce in the orchards that were heavily infested and trees defoliated last year, whereas those pecan orchards that had light infestations last year are heavily infested this year. The infestation of pecan aphids this year in general, in the vicinity of Wiggins, is lighter than it was last year at this time. Probably the low relative humidity and high temperature that prevailed for several weeks retarded their multiplication.

R. P. Colmer (July 19): The black aphid of pecan is moderately abundant in the vicinity of Big Point on Schley trees. Defoliation is just starting.

R. W. Harned (July 22): A slight infestation of Myzocallis fumipennellus Fitch was observed on pecan trees at Lexington on July 15.

PECAN SPITTLE BUG (Clastoptera obtusa Say)

Mississippi

R. P. Colmer (July 19): Spittle bugs are abundant on pecans in the southern part of the eastern half of Jackson County.

FIG

GREEN JUNE BEETLE (Cotinis nitida L.)

North Carolina

W.A. Thomas (July 19): Adult beetles are very abundant on ripening figs, mutilating in some cases as much as 20 to 40 per cent of the fruit as fast as it ripens.

CITRUS

CITRUS APHID (*Aphis spiraecola* Patch)

Florida J. R. Watson (July 18): Fruit aphids are scarce. Infestation of *Aphis spiraecola* is greatly lessened.

CITRUS MEALYBUG (*Pseudococcus citri* Risso)

Florida J. R. Watson (July 18): Mealybugs have been very common on citrus, especially grapefruit.

California Monthly News Letter, Office of Los Angeles Co. Agr. Comr., Vol. 12, No. 6 (June 15): There is less mealybug infestation in the citrus orchards of Los Angeles County this year than ever before since this insect became established as a major pest. Heavy and systematic Cryptolaemus liberations last year, plus field conditions particularly favorable to their work, and a rapid increase in the new internal parasites recently introduced by the University of California, were responsible for an exceptionally light carry-over of mealybugs during the past winter and the subsequent light infestation this spring.

CITRUS WHITEFLY (*Dialeurodes citri* Ashm.)

Florida J. R. Watson (July 18): The citrus whitefly is very abundant. Unusually abundant compared with recent years.

BLACK SCALE (*Saissetia oleae* Bern.)

California Monthly News Letter, Office of Los Angeles Co. Agr. Comr., Vol. 12, No. 6 (June 15): A survey of the condition of the black scale in citrus groves in Los Angeles County shows this scale to be in the hatching period in all sections. Some localities are more advanced than others in this respect and in a few weeks complete hatches will occur on many properties.

CITRUS RUST MITE (*Eriophyes oleivorus* Ashm.)

Florida J. R. Watson (July 18): The citrus rust mite is very abundant - unusually abundant for July. Following the abnormal rains of June, July has had a rainfall of somewhat below normal, which probably accounts for the heavy infestation.

TRUCK - CROP INSECTS

SEED CORN MAGGOT (Hylemyia cilicrura Rond.)

Michigan      R. H. Pettit (July 18): The seed corn maggot is very abundant on beans.

Wisconsin      E. L. Chambers (July 18): The seed corn maggot is scarce. Doing damage to a 5-acre field of lima beans and causing replanting.

Iowa      C. J. Drake (July 23): The seed corn maggot is moderately abundant on onions at Davenport.

Nebraska      M. H. Swenk (June 15-30): The seed corn maggot was reported attacking planted bean seeds to a serious extent in Scotts Bluff County during the last week in June.

BLISTER BEETLES (Meloidae)

Georgia      O. I. Snapp (July 24): About two acres of soy beans at Marshallville are rather heavily infested by Epicauta vittata Fab. The area is being sprayed in an effort to check the spread.

Ohio      E. W. Mendenhall (July 9): Macrobasis unicolor Kby. is quite bad on Clematis vines planted about homes in New Lebanon, Montgomery County.

Indiana      J. J. Davis (July 25): Blister beetle (Epicauta spp.) are apparently more abundant than for several years.

Kentucky      W. A. Price (July 25): Several requests have come recently for information on the control of blister beetles.

Iowa      H. E. Jaquès (July 25): Blister beetles (E. vittata) are doing heavy destruction in Davis and Taylor Counties.

Missouri      L. Haseman (July 26): Along with the epidemic of grasshoppers there have also appeared during the month unusual swarms of blister beetles. Late potatoes, tomatoes, and other garden crops have been seriously damaged, particularly during the latter part of the month.

Nebraska      M. H. Swenk (July 15-30): During the last few days in June E. maculata Say appeared in abundance in the vicinity of Scottsbluff, in some cases stripping the potato and tomato vines.

Mississippi      F. A. Smith (July 17): The blister beetles are very abundant on eggplant, cantaloupe, and tomatoes, in East Tate County.

POTATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

New York

Weekly News Letter, N. Y. State Coll. Agr. (July 14): The Colorado potato beetle has been scarce in Onondaga County, but is now beginning to appear in large numbers.

Indiana

J. J. Davis (July 25): The Colorado potato beetle is more abundant this year than for a number of years. They were especially noticeable on potato and eggplant at Monterey, Bedford, and Lafayette July 3-16.

Illinois

C. C. Compton (July): The Colorado potato beetle is scarce in Cook County. Heavy oviposition fore part of July. Eggs destroyed by parasites and predators.

Wisconsin

E. L. Chambers (July 18): The Colorado potato beetle is very abundant in Portage County.

Iowa

H. E. Jaques (July): The Colorado potato beetle is moderately to very abundant in the southwestern two-thirds of the state and in Chickasaw, Fayette and Delaware Counties in the north-eastern corner.

Nebraska

M. H. Swenk (June 15-30): The Colorado potato beetle was first reported on June 21, from Furnas County, and is moderately abundant over the entire State.

POTATO FLEA BEETLE (Epitrix cucumeris Harr.)

New York

Weekly News Letter, N. Y. State Coll. Agr. (July): Damage by the potato flea beetle has been reported from Ontario, Wyoming, Onondaga, Orleans, and Genesee Counties.

Ohio

E. W. Mendenhall (June 28): The potato flea beetles are very bad on potato leaves, leaving them full of shot holes, in Muskingum County. They are troublesome every year but seem worse in some sections.

TOMATO WORM (Protoparce sexta Johan.)

Nevada

G. G. Schweis (July 17): About 65 acres of potatoes in Iowa County are showing a large amount of damage, while about 10 acres are stripped.

Utah

G. F. Knowlton (June 27): Tomato worms are causing damage to tomatoes at Vineyard and Geneva.

POTATO STALK BORER (Trichobaris trinotata Say)

Tennessee

A. C. Morgan (July 26): The potato stalk borer, Trichobaris trinotata Say, is seemingly wide-spread, but the infestation is not severe.

POTATO LEAFHOPPER (Empoasca fabae Harr.)

Vermont

H. L. Bailey (July 5): Potato leafhoppers are moderately abundant generally about the State.

New York

Weekly News Letter, N. Y. State Coll. Agr. (July 21): Considerable injury was noted in Oswego County.

New Jersey

T. J. Headlee (July 7): The potato leafhopper is moderately abundant.

Michigan

R. H. Pettit (July 18): The potato leafhopper is very abundant in Missaukee and Wexford Counties.

Wisconsin

E. L. Chambers (July 18): Potato leafhoppers are appearing in large numbers throughout the potato-growing sections of the State and marked injury is already being noticed; also attacking dahlia and apple.

Minnesota

A. G. Ruggles and assistants (July): This insect is being reported in moderate abundance with an occasional report of very great abundance.

South Dakota

H. C. Severin (July 18): The potato leafhopper is moderately abundant, as usual.

Iowa

C. J. Drake (July 23): The potato leafhopper is unusually abundant in Iowa this year. Unsprayed fields have been seriously injured.

H. E. Jaques (July): The potato leafhopper is moderately to very abundant over the southwestern two-thirds of the state and in the northeastern corner, in Chickasaw, Fayette, and Delaware Counties.

Missouri

K. C. Sullivan (July 1): The potato leafhopper is moderately abundant.

FALSE CHINCH BUG (Nysius ericae Schill.)

Utah

G. F. Knowlton (July 12): The false chinch bugs are damaging potatoes at Minersville, and garden crops in general at Parowan.

A TREEHOPPER (Campylenchia curvata Fab.)

Nebraska

M. H. Swenk (June 15-30): During the last week in June nymphs were found attacking potato vines in Cedar County, in northeastern Nebraska.

POTATO PSYLLID (Paratriozza cockerelli Sulc.)

Utah

G. F. Knowlton (June 30): The tomato psyllid is very abundant

on potatoes in most parts of Davis County. Some fields are almost completely destroyed at the present time by psyllid yellows, while others run from 5 to 100 per cent diseased. The first generation is nearly completed, and adult psyllids are becoming very abundant.

CABBAGE

IMPORTED CABBAGE WORM (*Pieris rapae* L.)

Indiana J. J. Davis (July 25): The cabbage worm was abundant at Monterey, French Lick, and Lafayette July 3-17.

Wisconsin E. L. Chambers (July 18): Serious losses of cabbage and cauliflower are being reported throughout the State this summer.

Missouri L. Haseman (July 26): The imported cabbage worm was scarce until about July 15 and since then worms and adults were very abundant at Columbia.

Nebraska M. H. Swenk (July 1-15): Beginning early in July the imported cabbage worm was frequently complained of as doing injury to cabbage in various parts of the State. (July 18): The imported cabbage worm is moderately abundant over the entire State.

Utah G. F. Knowlton (July 16): Cabbage worms are seriously damaging some cabbage patches.

SOUTHERN CABBAGE WORM (*Pieris protodice* B. & L.)

Texas F. L. Thomas (July 17): Very abundant on collards in a summer garden at College Station in July.

DIAMOND-BACK MOTH (*Plutella maculipennis* Curt.)

Washington W. W. Baker (July 17): Several reports have been received of rather heavy damage by this pest to cabbage fields near Kent. Cabbage, kale, and turnips are heavily infested at Grand Mound. One small patch of cabbage was dusted with barium fluosilicate and a good kill obtained.

CABBAGE APHID (*Brevicoryne brassicae* L.)

Indiana J. J. Davis (July 25): The cabbage aphid is abundant at New Carlisle July 4.

Wisconsin E. L. Chambers (July 18): Many requests for control are being received from LaCrosse, Outagamie, and Winnebago Counties.

South Dakota      H. C. Severin (July 18): The cabbage aphid was extremely abundant on crucifers of all kinds.

Nebraska      M. H. Swenk (June 15-30): There are numerous complaints of the cabbage aphid on cabbage in eastern Nebraska.

HARLEQUIN BUG (*Murgantia histrionica* Hahn)

North Carolina      W. A. Thomas (July 16): The harlequin cabbage bug is unusually abundant this season. Already collards are wilting badly in many gardens in this section as a result of the attack of thousands of these insects. One grower brought a pint of these insects to the laboratory, all collected from a small garden plot one afternoon. It was observed today that these insects were congregating on cowpeas in clusters about the fruit stems, apparently feeding on exuding juices. Some specimens seemed to be feeding on the young immature pods causing wilting. These peas were near a heavily infested collard plot.

Oklahoma      G. A. Bieberdorf (July 20): The harlequin bug is moderately abundant over most of the State.

Alabama      J. M. Robinson (July 23): The harlequin bug is very abundant, attacking peaches at Auburn and Alexander City.

Mississippi      R. W. Harned (July 22): Injury to collards was reported from Gowdey, Hinds County, on June 24.

                M. L. Grimes (July 19): The harlequin bug is very abundant at Meridian.

STRAWBERRY

STRAWBERRY LEAF ROLLER (*Ancylis comptana* Frohl.)

Ohio      E. W. Mendenhall (July 9): The strawberry leaf roller is quite abundant in strawberry plantations at New Carlisle, Clark County.

Indiana      J. J. Davis (July 25): The strawberry leaf roller is reported abundant on grape at Greencastle June 26.

STRAWBERRY CROWN MOTH (*Aegeria rutilans* Hy. Edw.)

Oregon      D. C. Mote (July 1): The strawberry crown borers reported by J. Wilcox are now coming out. It appears that in most places in the Willamette Valley they will not be a serious factor this year owing to activity of the parasites.

ROOT WEEVILS (Curculionidae)

Oregon

D. C. Mote and J. Wilcox (July 1): Common strawberry root-weevils Brachyrhinus spp. do not appear to be as abundant in the Willamette Valley this season as last year. Damage by these weevils has decreased during the last two years owing apparently to effective baiting for their control. Native strawberry root-weevils Dyslobus spp. have assumed the stellar role in destructiveness. These weevils emerge early in the spring in March, lay eggs in April and May, and the resulting grubs feed upon the roots of strawberries until late summer, when they pupate and change to adults.

STRAWBERRY ROOT APHID (Aphis forbesi Weed)

Wisconsin

E. L. Chambers (July 18): An unusually large number of infested plantings of strawberries are being found by the nursery inspectors.

BEANS

MEXICAN BEAN-BEETLE (Epilachna corrupta Muls.)

Massachusetts

A. I. Bourne (July 24): The Mexican bean beetle has been found quite generally distributed in fields of beans in southern Hampden County (just above Connecticut line). Infestations at present consist almost entirely of small "islands" of comparatively small area. No serious defoliation as yet.

Connecticut

W. E. Britton (July 24): The Mexican bean beetle is moderately abundant, near Norwalk, New Canaan, Watertown and Granby, where found in 1929. Not yet generally distributed over the State.

R. B. Friend (July 24): Larvae were found the first part of July on beans in the same locality (Orange, New Haven County) that was infested last year.

New York

Weekly News Letter, N. Y. State Coll. Agr. (July 28): Mexican bean beetles can be found practically all over Orange County on wax, string, and lima beans though the infestation is not serious.

New Jersey

T. J. Headlee (July 7): The Mexican bean beetle is moderately abundant.

Delaware

L. A. Stearns (July 23): More inquiries concerning the Mexican bean beetle have been received than concerning any other insect throughout the State.

Virginia

G. E. Gould (July 21): The Mexican bean beetle is not so serious near Norfolk as last year. Very little damage has been

reported so far. First-brood beetles have practically reached the peak of egg production at this time. Dry weather, thrips, and the red spider are doing more injury at present than the bean beetle.

West Virginia      L. M. Peairs (July 23): The Mexican bean beetle is very abundant in Morgantown and in general over the State.

North Carolina      W. A. Thomas (July 15): The Mexican bean beetle has been particularly injurious in the vicinity of Chadbourn this season, destroying most of the early snap beans by July 1. Limas were also heavily attacked at that time. At the present time few larvae are present on the plants, while adults are very abundant. Damage is not so serious as it was in early July.

Ohio      T. H. Parks (July 15): The bean beetle has been very scarce, presumably owing to the very hot, dry weather, but one complaint has been received and that from near Cincinnati. In most places growers report no damage.

Ohio      E. W. Mendenhall (July 8): The Mexican bean beetle is quite severe in Springfield and vicinity. (June 30): It has put in its appearance in Muskingum County. They have been quite numerous in this section in other years.

Indiana      J. J. Davis (July 25): The Mexican bean beetle was reported abundant at Bedford, Paoli, Sunman, Indianapolis, Plainfield, French Lick, and Princeton, June 25-July 3.

Tennessee      A. C. Morgan (July 26): The Mexican bean beetle was uniformly injurious throughout this region, although the infestation was not exceptionally severe.

Mississippi      R. W. Harned (July 22): A correspondent at Falkner, Tippah County, reported that the larvae had caused severe injury to beans and butterbeans in that vicinity.

Mississippi      J. Milton (July 19): The Mexican bean beetle is moderately abundant in Alcorn, Prentiss, and Tishomingo Counties.

Colorado      C. P. Gillette (July 21): The Mexican bean beetle is moderately abundant, in regular areas. No new areas reported.

BEAN LEAF BEETLE (Cerotoma trifurcata Forst.)

Ohio      E. W. Mendenhall (July 2): The bean leaf beetle is very abundant and doing considerable damage to beans in Mt. Vernon and vicinity.

A SCARABID (Strigoderma arboricola Fab.)

North Carolina

C. H. Brannon in letter to W. H. White (July 23): This insect has caused considerable damage over the state and it appears to be especially bad in Caldwell County where it caused heavy damage to beans several years ago. The damage generally is probably more apparent than real but I noticed many fields of beans very heavily infested.

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)

Indiana

J. J. Davis (July 25): The spotted cucumber beetle was reported a serious pest of beans for canning at Greenfield, June 26.

BEAN LEAF ROLLER (Goniurus proteus L.)

New York

Weekly News Letter, N. Y. State Coll. Agr. (July 21): In the bean fields where precautions have not been followed leaf rollers are quite prevalent.

POTATO LEAFHOPPER (Empoasca fabae Harr.)

Maryland

G. E. Gould (July 21): Mr. L. W. Brannon reports leafhoppers as being injurious to beans in Maryland.

Virginia

G. E. Gould (July 21): Leafhoppers are abundant on snap beans and are causing noticeable damage.

BEAN APHID (Aphis rumicis L.)

Nebraska

M. H. Swenk (June 15-30): The bean aphid was repeatedly reported from various parts of the State during the period from June 20 to 25.

CUCURBITS

STRIPED CUCUMBER BEETLE (Diabrotica vittata Fab.)

Florida

J. R. Watson (July 18): The striped cucumber beetle is very abundant in the Everglades.

Ohio

T. H. Parks (June 30): The striped cucumber beetle is very abundant.

E. W. Lendenhall (July 1): The striped cucumber beetle are very troublesome in Knox County this year attacking cucumbers and melons.

Indiana

J. J. Davis (July 25): The striped cucumber beetle was abundant and destructive at Bedford, Huntington, Warsaw, Sunman, Michigantown, Aurora, and Lafayette, June 26-July 19.

Illinois      C. C. Compton (July): The striped cucumber beetle is scarce in Cook County. No commercial damage was experienced this season.

Michigan      R. H. Pettit (July 18); The striped cucumber beetle is very abundant in Lower Michigan.

Wisconsin      E. L. Chambers (July 18): The striped cucumber beetle is moderately abundant. Cucumber growers in the southern part of the State report heavy losses.

Minnesota      A. G. Ruggles and assistants (July): Reports from the southern part of the State indicate that the striped cucumber beetle is occurring in normal numbers.

South Dakota      H. C. Severin (July 18): The striped cucumber beetle is moderately abundant as usual.

Nebraska      M. H. Swenk (June 15-30): The striped cucumber beetle was first reported from Lancaster County on June 18. Other reports were received during the remainder of June. (July 18): The striped cucumber beetle is moderately abundant over the entire State.

Iowa      H. E. Jacques (July 25): The striped cucumber beetle is appearing in moderate abundance in several places and has been reported as very abundant in Monroe, Jefferson, and Mahaska Counties.

Oklahoma      G. A. Bieberdorf (July 20): The striped cucumber beetle is moderately abundant over the eastern three-fourths of the State.

WESTERN STRIPED CUCUMBER BEETLE (Diabrotica trivittata Mann.)

California      R. E. Campbell (July 22): Reports of heavy damage by the striped cucumber beetle to cucumbers have come to this office from several localities in Los Angeles County.

MELON APHID (Aphis gossypii Glov.)

Virginia      G. E. Gould (July 21): The melon aphid has been found injurious in one cantaloupe field and is present in many cucumber fields.

Indiana      J. J. Davis (July 25): The melon aphid is destructive at Bedford and Huntington June 26.

Nebraska      M. H. Swenk (June 15-30): The first report of the melon aphid was received from Lancaster County on June 18. (July 1-15): Reports of injury ceased suddenly about the end of the first week in July, except for the melon aphid on melons and cucumbers, which continued to be reported in the usual numbers during the period here included.

PICKLE WORM (Diaphania nitidalis Stoll)

North Carolina      W. A. Thomas (July 3): These larvae have already begun entering the fruit of summer squash. This is nearly three weeks earlier than usual for this section. No injury to cantaloupes has yet been observed.

Kentucky            W. A. Price (July 25): The pickle worm is generally prevalent over the State but doing special damage at Conkling to squash and melons.

Alabama            J. M. Robinson (July 23): The cantaloupe worm is generally abundant at Graceville, Riverside, Wilsonville, Auburn, Newala, and Selma and throughout the State.

Indiana            J. J. Davis (July 25): The squash bug was causing dying of cucumber shoots at Indianapolis July 1.

Illinois            C. C. Compton (July): Squash bugs are reported in Cook County July 12, 1930. Very scarce this year for the third successive season.

Utah               G. F. Knowlton (July 16): Squash bug injury is noticeable in many squash-growing areas of northern Utah.

California        R. E. Campbell (July 22): Squash bugs are reported to be very abundant on squash in the San Fernando Valley (Los Angeles County) and serious damage is feared.

SQUASH BORER (Melittia satyriniformis Hbn.)

Iowa               C. J. Drake (July 22): The squash vine borer is fairly common in the State. Some of the squash vines in the vicinity of Ames have been badly injured by the borer.

ONIONS

ONION THIRIPS (Thrips tabaci L.)

New York           Weekly News Letter, N. Y. State Coll. Agr. (June 30): Thrips are present to some extent in Genesee and Orleans Counties.

Virginia           G. E. Gould (July 21): Thrips have caused severe damage to cucumber, pea, onion and cabbage. Injury to cucumbers is more pronounced in fields that were dusted for the striped cucumber beetle and for downy mildew.

Illinois            C. C. Compton (July): The onion thrips is proving very destructive to roses and chrysanthemums in the Chicago district.

Iowa                    H. E. Jaques (July 25): Wayne County reports the onion thrips doing damage.

Utah                    G. F. Knowlton (July 18): The onion thrips is unusually abundant and causing damage throughout the onion-growing sections of northern Utah.

ONION MAGGOT (*Hylemyia antiqua* Meig.)

New York                Weekly News Letter, N. Y. State Coll. Agr. (June 30): Onion maggots have infested unsprayed plants heavily this season in Niagara County. The onion maggot injury is not so serious as in certain other years in Genesee and Orleans Counties.

Illinois                C. C. Compton (July): For the first time in ten years the onion maggot has not caused commercial damage in Cook County.

North Dakota            J. A. Munro (July 17): The onion maggots have caused serious injury to growers at Kramer, Bottineau County, and Bartlett, Ramsey County.

Utah                    G. F. Knowlton (July 16): The onion maggot is causing some injury to onions at Sandy.

CARROT

PARSLEY STALK WEEVIL (*Listronotus latiusculus* Boh.)

Iowa                    H. E. Jaques (July 25): Carrot weevils have been doing considerable damage to carrots in Henry County.

EGGPLANT

EGGPLANT LACEBUG (*Gargaphia solani* Heid.)

Mississippi            R. W. Harned (July 22): Lacebugs identified by J. M. Langston were reported as causing serious injury to eggplant at Senatobia on June 30.

SWEETPOTATO

TORTOISE BEETLES (Cassidinae)

Mississippi            R. W. Harned (July 22): Tortoise beetles, *Chelymorpha cassidea* Fab., were reported as causing injury to sweetpotatoes at Ashland, and Houston, on July 18. Specimens of *Metriona bivittata* Say were collected on sweetpotato plants at Enterprise and Kewanee on July 14. Specimens of *M. bicolor* Fab. were collected from moon vines at Meridian on June 23. Medium injury in each case was reported.

SWEET-POTATO SAWFLY (Sterictiphora collaris Say)

Virginia

G. E. Gould (July 21): The larvae of the sweet-potato sawfly were found at Munden again this year, doing slight damage to a field of sweet potatoes. On this farm last year the damage of the first and second broods caused a reduction of about 50 per cent in yield. There appears to be only a light infestation this summer. The majority of the larvae of the first brood have already pupated. Many adult flies of its parasite (Schizocerophaga leibyi Twn.) were seen in the field.

MINT

MINT FLEA BEETLE (Longitarsus mentaphagus Gentner)

Indiana

J. J. Davis (July 25): The mint flea beetle was reported on July 11 as destructive at Millersburg. Other reports for northern Indiana indicated similar damage to mint.

BEETS

BEET LEAFHOPPER (Eutettix tenellus Baker)

Colorado

C. P. Gillette (July 21): E. tenellus has never been taken in northern Colorado, but in recent trip through beet fields an occasional beet was found with typical curly-top leaves. Where such a beet was found it was common to find two or three others near by.

Utah

G. F. Knowlton (July 19): The beet leafhopper is moderately to very abundant in Northern Utah. Causing slight to considerable damage to beets and tomatoes.

SUGAR BEET ROOT MAGGOT (Tetanops aldrichi Hendel)

Utah

G. F. Knowlton (July 8): Maggots are causing some damage at Amalga.

BEET WEBWORM (Loxostege sticticalis L.)

Minnesota

A. W. Aamodt (July 19): Sugar-beet webworms are abundant in some fields in Polk County.

MUSHROOMS

A FUNGUS GNAT (Sciara sp.)

Missouri

O. E. Gahm (June 4): Larvae are doing commercial damage in the mushroom caves at Herman and in commercial mushroom houses at Leeds.

Colorado      O. E. Gahm (June 6): Sciarid fly larvae are commercial damage to mushrooms in the houses at Denver.

Washington    O. E. Gahm (June 21): Larvae are doing damage in commercial mushroom houses at Seattle.

California    O. E. Gahm (June 10): Practically all of the mushroom houses were infested with fungus gnats, Sciara sp.

MUSHROOM MITE (Tyroglyphus lintneri Osb.)

Missouri     O. E. Gahm (June 2): The mushroom mite, Tyroglyphus lintneri Osb., is doing commercial damage in the mushroom caves at Herman, Mo. (June 4): Mushroom mites are doing damage in commercial mushroom houses at Leeds.

California    O. E. Gahm (June 10): Practically all of the mushroom houses were infested.

SPRINGTAILS (Collembola)

Minnesota    O. E. Gahm (July 1): Heavy infestations of a springtail determined by Dr. Folsom as a species of Achorutes, were found in mushroom beds in the sandstone caves at St. Paul.

Missouri     O. E. Gahm (June 4): Springtails of the genus Schottella, heretofore undescribed in this country, are causing commercial damage to mushrooms at Leeds.

TOBACCO

GREEN JUNE BEETLE (Cotinis nitida L.)

Tennessee    A. C. Morgan (July 26): The grubworm was again injurious in the limited area to which it has seemingly been confined for several years.

HORN WORMS (Protoparce spp.)

Tennessee    A. C. Morgan (July 26): The tobacco hornworms, Protoparce sexta Johan. and P. quinquemaculata Haw., were more than usually numerous in June, but since that time, owing to the protracted and severe drought, have been unusually scarce.

SOD WEBWORM (Crambus sp.)

Tennessee    A. C. Morgan (July 26): Crambus sp. were moderately injurious in a few fields.

SUGARCANE

SUGARCANE BORER (Diatraea saccharalis Fab.)

Louisiana

W. E. Hinds (July 26): The second generation is scarce. Trichogramma minutum Riley in field.

FOREST AND SHADE - TREE INSECTS

BAGWORM (Thyridopteryx ephemeraeformis Haw.)

Ohio

E. W. Mendenhall (July 24): The bagworm menace is checked in Columbus and southwestern Ohio. Very little destruction is noted this summer, probably owing to parasite insects.

Indiana

J. J. Davis (July 25): Bagworm defoliating evergreens at New Albany June 22 and boxelder at Brookville July 15.

Mississippi

R. W. Harned (July 22): A correspondent at Meridian on July 12 reported a heavy infestation on cedar.

SATIN MOTH (Stilpnobia solcis L.)

Vermont

H. L. Bailey (July 26): Satin moth adult and egg mass found at White River Junction July 19. New location record for the state. Previously found only in towns from Springfield along Connecticut River to Massachusetts line.

Rhode Island

A. E. Stene (July 18): The satin moth has been less abundant this year than in any recent year. Little spraying was necessary and there was no defoliation.

GIPSY MOTH (Porthetria dispar L.)

Rhode Island

A. E. Stene (July 18): Gipsy moths have been less abundant this year than in any recent year.

FALL WEBWORM (Hyphantria cunea Drury)

New England

J. V. Schaffner, Jr. (July 25): Small webs of the fall webworm are now quite common through many sections of New England.

TWO-LINED CHESTNUT BORER (Agrilus bilineatus Web.)

New York

E. P. Felt (July 26): The two-lined chestnut borer is killing trees here and there in the metropolitan area of New York City, infestations being observed at Hartsdale and Pelham, N. Y., though similar work is doubtless common in many other localities.

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

Illinois

C. C. Compton (July): Several severe infestations on ash have come to my attention in Cook County.

SPRUCE MITE (Paratetranychus unungius Jacobi)

Connecticut

W. E. Britton (July 24): This insect was reported at Beacon Falls and Old Lyme, attacking spruce and arborvitae.

ASH

ASH APHID (Prociphilus fraxinifolii Thos.)

Utah

G. F. Knowlton (July 3): Ornamental ash trees are having their leaves seriously curled.

BEECH

WOOLLY BEECH APHID (Prociphilus imbricator Fitch)

Connecticut  
and  
New York

E. P. Felt (July 26): The beech-tree blight aphid has been reported so abundant at Hartford, Conn., and Scarsdale, N. Y., as literally to cover portions of the trunk and the larger branches of beech trees.

BIRCH

BRONZE BIRCH BORER (Agrilus anxius Gory)

Connecticut

W. E. Britton (July 11): This borer on European white birch is reported in New Canaan.

BIRCH CASE BEARER (Coleophora salmani Hein.)

Maine

H. B. Peirson (July 22): Almost complete defoliation of birch in stands on Mount Desert Island by the birch case bearer.

BIRCH LEAF-MINING SAWFLY (Phylloptoma nemorata Fallen)

Maine

H. B. Peirson (July 22): The birch leaf-mining sawfly promises to be very generally abundant.

BOXELDER

BOXELDER APHID (Periphyllus negundinis Thos.)

Minnesota

R. C. Shaw (July 18): Aphids are moderately abundant at Penham. Some trouble on boxelder.

South Dakota      H. C. Severin (July 18): Boxelder aphids were extremely abundant.

Nebraska      M. H. Swenk (July 15-30): The boxelder aphid continued to be reported from central Nebraska up to June 25.

CAMPHOR

CAMPHOR THrips (Cryptothrips floridensis Watson)

Mississippi      F. P. Amsler (July 18): The camphor thrips is very abundant around Gulfport this month. Many trees have been killed.

ELM

ELM LEAF BEETLE (Galerucella xanthomelaena Schrank)

New Hampshire and Massachusetts      J. V. Schaffner Jr. (July 25): In many localities throughout the Eastern part of Massachusetts and in a section of Manchester, N. H., the elm trees show the effects of a severe infestation.

Connecticut      R. B. Friend (July 24): This insect is locally very abundant. It is causing injury to elm trees in Guilford, many being now brown.

Northeastern U. S.      E. P. Felt (July 26): This insect has developed in considerable numbers from southern Westchester County, N. Y., and southwestern Connecticut, northward to Lenox, Mass., the infestations at Pleasantville, N. Y., Danbury and Windsor, Conn., and Lenox, Mass., being sufficiently severe to produce partial to almost complete defoliation, the effect being accentuated by the recent extremely hot, dry weather.

Ohio      E. W. Mendenhall (July 24): A very severe outbreak of the elm leaf beetle in London (Madison County).

Kentucky      W. A. Price (July 25): The elm leaf beetle is responsible for the defoliation of elms in Louisville and Lexington. It was also collected in a dwelling in Danville, on July 22.

Oregon      D. C. Mote (July 1): J. E. Davis reports that eggs of the elm leaf beetle have hatched in and around Corvallis, and larvae are numerous.

A LEAF BEETLE (Calligrapha scalaris Lec.)

Nebraska      M. H. Swenk (June 15-30): The leaf beetle continued its defoliation of elm trees up to the end of June. The greatest damage was done in southern Nuckolls County, but the infestation extended north through Clay and east into Fillmore and Thayer Counties.

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A SCOLYTID BEETLE (Hylurgopinus rufipes Eich.)

New York      E. P. Felt (July 26): The dark elm bark borer, Hylurgopinus rufipes Eich., was found in large numbers in a dying elm at Pelham, the primary trouble probably being due to a deficient and variable water supply.

ELM BORER (Saperda tridentata Oliv.)

Nebraska      M. H. Swenk (June 15-30): Borers reported during the period here covered included the elm borer, beginning June 12.

WOOLLY ELM APHID (Eriosoma americanum Riley)

Indiana      J. J. Davis (July 25): The woolly elm aphid was reported June 30 as very abundant on elm at Anderson.

Nebraska      M. H. Swenk (June 15-30): Beginning June 12, and continuing to June 24, a great many reports of curled elm leaves were received. In some cases the attacks were severe. These reports came from all of the central parts of the State, from Pierce, Dodge, York, and Nuckolls Counties west to Cherry and Chase Counties.

ELM COCKSCOMB GALL (Colopha ulmicola Fitch)

New York      E. P. Felt (July 26): The coxcomb elm gall was somewhat abundant on elm foliage at Westbury, Long Island.

Indiana      J. J. Davis (July 25): The elm cockscomb gall was sent in from Orleans, Indianapolis, and Elwood.

Illinois      W. P. Flint (July 17): The cockscomb gall of elm has been very abundant throughout the northern two-thirds of Illinois. This aphid is present not only on street trees in towns and cities but is quite abundant in the woodlands.

EUROPEAN ELM SCALE (Gossyparia spuria Modeer)

Ohio      E. W. Mendenhall (July 24): The European elm scale is quite prevalent on the elms planted along the streets in London, Madison County. I find some of the elms at North Columbus badly infested.

COTTONY MAPLE SCALE (Pulvinaria vitis L.)

Nebraska      M. H. Swenk (June 15-30): In Pierce County an infestation of the elm trees in the town of Plainview was reported on June 17.

A POCKET GALL (Eriophyes ulmi Garman)

Nebraska

M. H. Swenk (June 15-30): In Cherry County the elm trees were reported heavily infested with pocket galls formed by Eriophyes ulmi in the vicinity of Merriman, during the third week in June.

HACKBERRY

HACKBERRY NIPPLE GALL (Pachypsylia celtidis-mamma Riley)

Nebraska

M. H. Swenk (June 15-30): Hackberry foliage affected by the hackberry nipple gall was sent in from different localities during the period here covered.

A CERAMBYCID (Urographis triangulifera Hald.)

Nebraska

M. H. Swenk (June 15-30): Borers reported during the period here covered include the hackberry borer (Urographis triangulifera) beginning June 14.

HACKBERRY BUTTERFLY (Chlorippe celtis Bd. & Lec.)

Nebraska

M. H. Swenk (July 1-15): A Douglas County correspondent reported his hackberry trees considerably injured by these caterpillars.

JUNIPER

AN APHID (Sanbornia juniperi Perg.)

Mississippi

J. P. Kislanko (July 19): One of the junipers at Wiggins was heavily infested with a juniper aphid (Sanbornia juniperi Pergande). At the time of observation no late forms were found. The apterous individuals were heavily parasitized.

LINDEN

LINDEN LEAF GALL (Eriophyes abnormis Garm.)

Nebraska

M. H. Swenk (June 15-30): In the town of St. Paul, Howard County, a number of linden trees have the leaves badly affected with the galls of the linden gall mite (Eriophyes abnormis).

LOCUST

LOCUST TWIG BORER (Ecdytolopha insiticiana Zell.)

Ohio

E. W. Mendenhall (July 16): The black locusts in nurseries at Springfield are badly infested with the locust twig borer.

MAPLE

FLAT-HEADED APPLE-TREE BORER (Chrysobothris femorata Oliv.)

Indiana

J. J. Davis (July 25): What was supposed to be the flat-headed borer was destructive to maple at Martinsville, June 28.

SUGAR-MAPLE BORER (Glycobius speciosus Say)

Ohio

E. W. Mendenhall (July 24): The sugar maple borers are very bad in the hard maples planted on the streets of London (Madison Co.). Many limbs and even the trees are dying from this destructive pest.

NORWAY MAPLE APHID (Periphyllus lyropictus Kess.)

Indiana

J. J. Davis (July 25): The Norway maple aphid was abundant on Norway maple at Bedford and Orleans, June 25 and 26, respectively.

WOOLLY ALDER APHID (Prociphilus tessellatus Fitch)

Massachusetts

E. P. Felt (July 26): The alder blight aphid was reported as seriously injuring soft maple foliage at Southfield, late in June.

COTTONY MAPLE SCALE (Pulvinaria vitis L.)

Indiana

J. J. Davis (July 25): Abundance of the cottony maple scale was reported from Warren, Fowler, Saratoga, and Morristown.

Iowa

C. J. Drake (July 22): The cottony maple scale is very abundant in Iowa this year. Records have been received from the following places: Lake Park, Lakota, Thompson, Mason City, Hampton, Davenport, Exira, Buffalo Center, Renwick, and Durant. This is the first year that the cottony maple scale has been abundant in Iowa.

OAK

OAK TWIG PRUNER (Hypermallus villosus Fab.)

Massachusetts

E. P. Felt (July 26): The maple and oak twig pruner is reported as injurious in the Boston area.

Connecticut      W. E. Britton (July 24): Reported fully as abundant as last year at New Haven, Hartford, and Bridgeport.

New York      E. P. Felt (July 26): Reported as somewhat common at South Salem, N. Y.

OAK SPANWORM (Elloptia somniaria Hbst.)

Oregon      D. C. Mote (July 1): W. J. Chamberlin reports the oak looper is very abundant in certain sections on Gary oak.

OAK KNOT GALL (Andricus punctatus Bass.)

Massachusetts      E. P. Felt (July 26): The knotty oak gall, Andricus punctatus Bass., has been reported as causing considerable injury to trees at Jamaica Plain, Mass.

New York      E. P. Felt (July 26): A. punctatus Bass., has been reported as causing considerable injury to trees in the metropolitan area of New York City.

GOLDEN OAK SCALE (Asterolecanium variolosum Ratz.)

Massachusetts      E. P. Felt (July 26): A. variolosum is known to be somewhat common in the Boston area.

Connecticut      E. P. Felt (July 26): Serious infestations were recently reported from Kent.

New York      E. P. Felt (July 26): It is somewhat prevalent in the New York City area.

Pennsylvania      E. P. Felt (July 26): It is somewhat prevalent in the Philadelphia area.

Illinois      E. P. Felt (July 26): Serious infestations were reported from Chicago, Ill.

PINE

BARK BEETLES (Scolytoidea)

Mississippi      H. Dietrich (July 21): In Pascagoula River swamps in George County, Pinus glabra is being attacked by Ips calligraphus Germ. and Dendroctonus terebraus Oliv., together with various other scolytids usually found together. Mature pines were cut a year ago. Beetles bred up in tops and trees felled along the road this spring are now attacking living trees adjoining. I. calligraphus is by far the most prominent. Many clerid larvae are present and, with fungus, should stop infestation.

WHITE-PINE WEEVIL (Pissodes strobi Peck)

Vermont H. L. Bailey (July 5): The white pine weevil was reported as very plentiful in a Norway spruce plantation, at Dummerston July 3. Observations elsewhere show much damage by this insect.

Connecticut E. P. Felt (July 26): Attacks young pines commonly and was specifically reported as injurious at Norwalk.

New York E. P. Felt (July 26): Specifically reported as injurious at Chappaqua.

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana Schiff.)

Connecticut E. P. Felt (July 26): Evetria buoliana occurs here and there at Stamford.

New York E. P. Felt (July 26): The pine shoot moth, abundantly infests small pines near Peekskill, N. Y. It is locally somewhat common on Long Island.

A MOTH (Ochnerostoma pinariella Zell.)

Washington Wm. W. Baker (July 7): This moth has just recently emerged and is mating now. The females appear to be well filled with eggs.

PINE LEAF SCALE (Chionaspis pinifoliae Fitch)

Ohio E. W. Mendenhall (July 24): I find some outbreaks of the pine leaf scale on white pines and mugho pines in nurseries and private plantings in Columbus and vicinity.

Nebraska M. H. Swenk (June 15-30): About the usual number of complaints, beginning June 25, were received during the last few days in June relative to the infestation of spruce trees with the pine leaf scale (Chionaspis pinifoliae). These reports came chiefly from the eastern half of the State.

POPLAR

POPLAR BORER (Saperda calcarata Say)

Ohio E. W. Mendenhall (July 18): The poplar borer is very bad in Lombardy poplars, in a nursery at New Moorfield, Clark County.

ACERAMBICID (Saperda populnea L.)

Arizona C. D. Lebert (July 25): The poplar borer was found killing young poplars at Phoenix July 24<sup>th</sup>.

DUSKY LEAF ROLLER (Amorbia humerosana Clem.)

Maine

H. E. Feirson (July 22): About 300 acres of poplar stripped in Skinner.

SPRUCE

SPRUCE BUDWORM (Harmologa fumiferana Clem.)

Michigan

R. H. Pettit (July 9): The spruce tortrix has been found in the following places since the 1st of January; Ann Arbor, Oscoda, Detroit, Charlotte, Hillsdale, Tonia, Bad Axe, Kalamazoo, Grayling, Farmington, Scottville, and Lakeside. (July 18): The spruce budworm is moderately abundant.

Wisconsin

E. L. Chambers (July 18): The spruce budworm is moderately abundant on large white pine stand in Bayfield County. Both the pine and balsam species are quite abundant in some sections. A very serious outbreak of the spruce budworm was discovered in southern Bayfield County recently which practically defoliated trees over an area of more than 500 acres comprising a good stand of jack and white pines. Many trees were already dead from attacks, apparently of previous years.

TAMARISK

TAMARISK SCALE (Chionaspis etrusca Leon.)

Arizona

C. D. Lebert (July 25): This scale is extremely abundant throughout Phoenix. Every tamarisk tree has from few to many scales and in the majority of cases the upper limbs are completely covered to the extent that they have a moldy appearance. There has been considerable needles shed and many of the trees have a sickly appearance. In every case where there is from medium to heavy infestation of the scale a predacious ladybeetle (Olla abdominalis form, plagiata Casey) has become established in great numbers.

TULIP

TULIP TREE SCALE (Toumeyella liriodendri Gmel.)

Indiana

J. J. Davis (July 25): The tulip tree scale was reported abundant on tulip trees at Shoals July 22.

WILLOW

WILLOW CURCULIO (Cryotorhynchus lapathi L.)

Ohio E. W. Mendenhall (July 18): I find an outbreak of the mottled willow borer at Springfield (Clark Co.).

Indiana J. J. Davis (July 25): The mottled willow and poplar borer was very destructive to pussy willow at St. Joe, June 26.

A CHRYSOMELID (Calligrapha multipunctata Say)

Nebraska M. H. Swenk (July 1-15): Along the Missouri River in the vicinity of Blair, the leaf-beetle Calligrapha multipunctata occurring in great abundance, has defoliated the small willow trees 3 or 4 feet high, along the stream.

COTTONWOOD BORER (Plectrodera scalator Fab.)

Ohio E. W. Mendenhall (July 14): I find the cottonwood borer quite bad on pussy willow in some of the nurseries at Columbus.

AN ITONID (Rhabdophaga cornuta Walsh)

Nebraska M. H. Swenk (July 1-15): Along the Missouri River in the vicinity of Blair, the small willow trees bear an abundance of the galls.

MORNING-CLOAK BUTTERFLY. (Aglais antiona L.)

Nebraska M. H. Swenk (July 15-30): During the last week in June the larvae of the morning-cloak butterfly were found badly stripping willow trees in Madison and Lancaster Counties.

YEW

BLACK VINE WEEVIL (Brachyrhinus sulcatus Fab.)

New York E. P. Felt (July 26): The black vine weevil, was reported as injuring yew at Westbury, L. I., the insects being sufficiently abundant as to cause considerable injury.

I N S E C T S A F F E C T I N G G R E E N H O U S E A N D  
O R N A M E N T A L P L A N T S A N D L A W N S

A CICADA (Diceroprocta viridifascia Walk.)

Florida H. E. Spaulding (July 3): First observed in 1926, first serious in spring of 1930, killing entire plantations of

Asparagus plumosus at Jupiter. Land cleared of Palmetto scrub in about 1920. First adults about June 15 but still coming out. Most serious on plants in wet spots.

Wm. T. Davis, who identified this insect, says, "It occurs along the coast from Virginia to the Gulf of Mexico and has been collected from May to September. In my experience D. viridifascia has not occurred in sufficient numbers to be a pest by laying eggs in branches of young trees or bushes."

A CICADA (Tibicens cinctifera Uhler.)

Arizona

C. D. Lebert (July 25): This insect was coming out in great numbers from July 1st to the 15th. On July 8th I visited one citrus grove near Phoenix and counted 167 cast skins on one tree trunk. Every tree held from 3 to 100 or more cast skins. At the present date the trees throughout the valley are literally alive with the adults. Thus far no damage of economic importance has been found.

APHIDS (Aphidae)

Indiana

J. J. Davis (July 25): During the latter part of June, aphids were very abundant. They were especially abundant on nasturtium, golden glow, rose, sweet pea, plum, radish, and turnip. Reports of June 26-July 9 came from New Carlisle, Tipton, Veedersburg, Warsaw, Lafayette, Anderson, and Franklin.

Texas

O. G. Babcock (June 12): Aphids in general are increasing on sweet peas and roses.

GREENHOUSE WHITEFLY (Trialeurodes vaporariorum Westw.)

Ohio

E. W. Mendenhall (July 2): Some of the vegetable greenhouses in Mt. Vernon (Knox County) are badly infested with the greenhouse whitefly. Tomatoes and cucumber plants are very full of the whitefly.

A MEALYBUG (Pseudococcus kranhiae Kuwana)

Mississippi

H. Dietrich (July 21): Mealybugs (P. kranhiae) are bad on coleus and other greenhouse plants at Lucedale. Det. A. & M. College.

ARBORVITAE

EUROPEAN FRUIT LECANIUM (Lecanium corni Bouche)

Ohio

E. W. Mendenhall (July 16): In some of the nurseries about Springfield we find the European fruit scale very bad. (July 22): The pyramidal arborvitae in nurseries about Springfield are badly infested with the soft scales or lecaniums. (July 24): The soft or lecanium scales are quite bad on pyramidal arborvitae in nurseries in Clark County.

CANNA

LARGER CANNA LEAF ROLLER (Calpodes ethlius Cram.)

North Carolina      W. A. Thomas (July 1): Practically every canna border in this section presents an unsightly appearance as a result of the work of this insect. The infestation is more severe than ever before observed in this section.

Texas      O. G. Babcock (June 12): The canna leaf roller is here and starting work on the canna lily.

CREPE MYRTLE

CREPE MYRTLE APHID (Myzocallis kahawaluokalani Kby.)

Mississippi      <sup>R</sup> W. Harned (July 22): Specimens of Myzocallis kahawaluokalani were collected on crepe myrtle plants at Lucedale on July 10.

H. Dietrich (July 21): Plant lice, Myzocallis kahawaluokalani Kby., are very abundant on crepe myrtle at Lucedale. (Det. A. & M. College).

FUCHSIA

STRAWBERRY LEAF BEETLE (Haltica litigata Fall)

Mississippi      R. W. Harned (July 22): Flea-beetles, tentatively identified by J. M. Langston as Haltica litigata, were collected on Fuchsias at Columbus on July 9. These beetles had severely injured the Fuchsias in two beds containing about 400 plants, many of the plants having been entirely ruined.

IRIS

IRIS BORER (Macronoctua onusta Grote)

Michigan      R. H. Pettit (July 9): The iris borer has been found this season at Lake Odessa, Lansing, Port Huron, Jeddo, and Belding.

I N S E C T S   A T T A C H I N G   M A N   A N D

D O M E S T I C   A N I M A L S

MAN

MOSQUITOES (Culicinae)

Missouri      L. Haseman (July 26): In the vicinity of ponds, creeks, and

springs, mosquitoes (Culex sp.) have bred in great numbers and have been very annoying.

Montana      W. B. Mabee (July 22): Mosquitoes are unusually abundant over the entire State this season.

Mississippi    J. E. McEvilly (July 18): Mosquitoes are not abundant or causing any annoyance to residents in McComb.

Oregon        D. C. Mote (July 1): Aedes vexans Meig. and Aedes aldrichi Dyar and Knab began emerging about June 16 and apparently had passed the peak by June 25. The flood stage on the Columbia River is lower this year than in the past year and the waters have been receding since about June 18.

BLOOD-SUCKING CONENOSE (Triatoma sanguisuga Lec.)

Kentucky       W. A. Price (July 25): The blood-sucking cone-nose, T. sanguisuga, was the cause of considerable annoyance to many people, especially babies, in Lexington.

CATTLE

HORN FLY (Haematobia irritans L.)

Missouri       L. Haseman (July 26): The hot, dry weather has materially reduced the numbers of horn flies throughout central Missouri.

Texas          O. G. Babcock (June 12): Horn flies are becoming quite numerous, in some cases beginning to gather about the bases of the horns. Will carry from 100 to 1,000 per animal. Breeding conditions for the horn fly almost ideal.

HORSE FLIES (Tabanidae)

Missouri       L. Haseman (July 26): In spite of the drought during July horse flies have appeared in considerable numbers, causing much annoyance to livestock.

Montana        W. B. Mabee (July 22): Horse flies (Tabanidae) are also more abundant than normally.

STABLE FLY (Stomoxys calcitrans L.)

Iowa            C. J. Drake (July 22): The stable fly is extremely abundant in Iowa this year. About 1,300 flies were collected in a sweep of the net on the leeward side of one of the college barns this week. It is estimated that on an average 50 flies were resting on each brick on that side of the building.

Missouri

L. Haseman (July 25): The hot, dry weather has materially reduced the numbers of stable flies throughout central Missouri.

Nebraska

M. H. Swenk (June 15-30): Annoyance to livestock by the biting stable fly commenced to be received commonly during the last three days in June, from southern and eastern Nebraska. (July 1-15): The biting stable fly was exceedingly annoying to livestock in all parts of Nebraska during the period here covered. Many requests were received for fly sprays to use against this pest.

H O U S E H O L D A N D S T O R E D -

P R O D U C T I N S E C T S

T E R M I T E S (Reticulitermes spp. et al.)

New York

E. P. Felt (July 26): White ants, Reticulitermes flavipes Kollar, were reported as injuring the roots of yew or Taxus at Westbury, L. I.

Indiana

J. J. Davis (July 25): Termite infestations were reported during the month from Martinsville, Crawfordsville, and Indianapolis.

Alabama

J. M. Robinson (July 23): Termites are abundant at Selma and Jacksonville.

Arizona

C. D. Lebert (July 25): Several complaints from Phoenix residences having the pests in the hardwood floors. At one residence, a termite identified as Leucotermes (Leucotermes) aureus Snyder, was found to be doing severe damage to the hardwood flooring. Slight damage to young citrus seedlings northeast of Phoenix by an unidentified termite. The earthlike tubes were built up the trunks and the bark was eaten away beneath.

California

Monthly News Letter, Office of Los Angeles Co. Agr. Comr., Vol. 12, No. 6, (June 15): Contrary to recent belief, it has been determined, according to Deputy Agricultural Commissioner H. H. Wilcomb, that the dry-wood type of termite found generally infesting native growth on Catalina Island is not a new species, but one, Kalotermes minor Hagen, common to the southern coastal counties.

A N T S (Formicidae)

Indiana

J. J. Davis (July 25): Ants were annoying in dwellings at Michigantown, Frankford, Evansville, and Lafayette, during July.

Alabama

J. W. Robinson (July 23): The Argentine ant is very abundant at Birmingham.

A correction - The note on the Argentine ant by N. D. Peets on page 192 of the Insect Pest Survey Bulletin is incorrect. The poison campaign therein referred to was carried on only in the city of Brookhaven, Lincoln County. The note on the same insect by W. L. Gray on page 193 may be misleading, as the infested towns (Rodney, Jefferson County, Hambury and Meadville, Franklin County, Fort Adams and Woodville, Wilkinson County) are some distance from Natchez. The insect has not been found in the city of Natchez.

Mississippi

M. R. Smith (July): J. P. Kislanko has recently taken workers of Paratrechina longicornis Latr. at Wiggins. This is the first time that the species has been recorded from an inland town in Mississippi. Winged ants taken at a trap light in Wiggins on June 26 by Mr. J. P. Kislanko have been determined by Dr. M. R. Smith as males of Eciton mexicanum Smith-Mayr. Mr. Jack Milton reports that Iridomyrmex analis Andre has been observed infesting a house at Corinth. The Argentine ant is very abundant at Columbus.

J. E. McEvilly (July 18): The Argentine ants have been practically controlled as a household pest in the towns of McComb and Summit.

J. Milton (July 19): The Argentine ant was found at Dennis on July 14. This is the first time that this ant has been found in Tishomingo County.

R. W. Harned (July 22): The number of localities in Mississippi from which the Argentine ant has apparently been completely eradicated is increasing each month. Among the places at one time infested with this insect where campaigns have been successful in apparently eradicating it are the following: Fayette, Shaw, Quitman, Landon, Lyman, Woolmarket, Moss Point, Mayhew, Newton, A. & M. College, Longview, Osborn, Sessums, Star, Wiggins, and Centerville.

#### A POWDER-POST BEETLE (Apatides fortis Lec.)

Arizona

C. D. Lebert (July 25): The larger powder post beetle was working in stored mesquite firewood in a garage in Phoenix, July 24th. Larvae and adults present in large numbers. The wood was being rapidly reduced to a powder.

#### EUROPEAN EARWIG (Ferricula auricularia L.)

California

E. C. Essig (June 27): Found at Pinole the first record of this insect out of the area of Oakland, Berkeley, and Richmond.